BENGALURU ELECTRICITY SUPPLY COMPANY LIMITED

Customer Relation Section: Third Floor, 2nd- Block

Corporate office, K.R. Circle, Bengaluru -560001

TENDER ENQUIRY NO: BESCOM/ GM (CR)/ DGM(HT)/BC-48/ 2023-24/01 dated 16.05.2023

INVITATION TO BID

For

Supply, Integration, Warranty & On-site Maintenance of Android OS based Integrated Spot Billing Device (SBD), Connectivity, software, Thermal paper and allied services for Spot Billing in RAPDRP/IPDS area (Urban Area)

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Section: 1

Instruction to Bidders (IB)

IB 1.0 General:

IB 1.1 Bangalore Electricity Supply Company limited hereinafter referred to as BESCOM, a Government of Karnataka undertaking is responsible for the distribution of Electricity within the State of Karnataka (8 districts). BESCOM invites offers through E-procurement portal (https://kppp.karnataka.gov.in) in two Parts (Techno-Commercial Bid and Price bid) from eligible bidders for the "**Supply, Integration, Warranty & On-site Maintenance of Android OS based Integrated Spot Billing Devices (SBD), Connectivity, software and allied services for Spot Billing in RAPDRP/IPDS area (Urban Area)" for a period of two years and t**he Contract may be extended at the discretion of BESCOM for further period of another one year based on the performance of the agency on mutually agreed terms and conditions, if BESCOM desires so. The amount put to tender is ₹. 144.04 Crores.

IB 1.2 All the existing **Android OS based Integrated Spot Billing Devices (SBD) are to be taken back by the successful Bidder on as is where is basis, as such the prospective Bidders are required to inspect the condition of these SBDs and the per active installation per month rate shall be quoted considering the buy back of existing SBDs. The existing SBDs have the** warranty period of 3-Years, out of 3 years warranty period, two years five months warranty period is completed.

IB 1.3 The successful Bidder shall replace all the existing SBDs with brand new devices of specification with inbuilt OCR technology as stipulated in this tender or advanced technology SBD's approved by BESCOM. As such, the successful Bidder should provide SBD services with billing software and supply and maintenance of DC – DRC servers / other hardwares and transferring the bills generated information to the RAPDRP servers and up-

dation of collection / disconnection in the 25 towns of BESCOM which are covered under RAPDRP system by utilizing the brand new SBD's supplied by the successful Bidder. The SBDs required for the increase in the consumer base in both the RAPDRP and IPDS areas are to be provided by the successful Bidder without any additional cost to BESCOM.

IB 1.4 Under IPDS IT Phase – II, in the 20 towns of BESCOM which are now covered under Non-RAPDRP area and in the 25 towns of RAPDRP area, the contract for implementation of DC-DRC Hardware and Software refresh across all ESCOMs of Karnataka is being executed and as per the scope of the contract, the SBD billing software is a part of IPDS project. The SBDs required for the 20 IPDS towns have been procured by BESCOM and will be supplied to the successful Bidder and the successful Bidder should provide the SBD services without billing software with SBDs supplied by BESCOM and also provide all other hardwares, consumables required for the SBDs, the stationary, internet and other services as per the scope of the tender.

IB 1.5 Consequent to go live of IPDS IT Phase – II project or successful implementation of IPDS IT Phase – II project in BESCOM after monitoring its performance, BESCOM shall continue to avail the services of SBD in the both RAPDRP and IPDS areas without billing software with the BESCOM supplied SBDs for the IPDS area and agency supplied SBDs for the RAPDRP area. The consumers of IPDS area will be merged to RAPDRP area. The successful Bidder shall co-ordinate with IPDS / Non-RAPDRP agency and the SBD's should be in compliance with the software protocol of IPDS / Non-RAPDRP project and provide the services using the billing software of IPDS project. The contract is continued with the maintenance of SBDs and with reduced scope i.e., without the billing software of SBDs and rest of the services are continued as defined in the tender.

IB 1.6 These tenders are being invited, processed and awarded subject to condition that BESCOM shall have right to

terminate the contract earlier than the contract period by giving 2 months prior notice in the event of BESCOM opt to any alternative solution in the RAPDRP/IPDS area.

IB 2.0 Parties who may bid:

IB 2.1 Bidder having requisite qualification as per clause IB 18.00 may participate in the bid. A Bidder Firm/ Company shall not be entitled to form any Consortium for this Contract.

IB 3.0 Issue of Bid Documents:

IB 3.1 Bidders can download the tender documents from e-procurement portal (Free of cost) and Techno-Commercial bid will be available from **11/07/2023 to 10/08/2023 up to 15.00 Hrs.**

IB 3.2 All the Tender Documents shall be submitted through e-Procurement Portal on or before Last date of bid submission as mentioned in e-Procurement Portal. The technical bids will be opened on **11.08.2023 at 15.30 Hrs as** mentioned in the e-Procurement Portal. Date of opening of Price Bids will be intimated at a later date.

IB 4.0 Schedule of Availability, submission and opening of bid documents:

Sl. No	**Description**	**Schedule date & time**
1	Date of availability of Bids	**11.07.2023 on wards**
2	Pre bid meeting	**21.07.2023 at 11.00AM**
3	Last date for submission of Bids	**10.08.2023 at 15.00 Hrs**
4	Date of opening of Technical bid	**11.08.2023 at 15.30 Hrs**
5	Date of opening of Price	**Will be intimated later.**

	Bid	

IB 4.1 If a bandh or holiday falls on any of the scheduled date, and then scheduled date shall be considered as on next working day (between mentioned working hours).

IB 5.0 Pre bid meeting:

IB 5.1 A Pre bid meeting will be held at Conference hall, 3rd Floor, Beluku Bhavana, BESCOM, Corporate office, K.R. Circle, Bengaluru-01 on 21/07/2023 at 11:00 AM. The purpose of the meeting will be to clarify the exact scope of work, and any issues regarding the bidding documents in general which are raised at that stage. Interested bidders or their representative limited to 2 (two) persons may participate in the said meeting for any clarification before submission of their offers. The bidders are advised to submit their query, if any, signed & Scanned copy to gmcrbescom@gmail.com or bescommarketing@gmail.com hard copy to The General Manager (Customer Relations), Corporate Office, BESCOM, K. R. Circle, Bengaluru – 560 001, prior to the pre-bid meeting. Queries raised after the Pre-bidding meeting will not be entertained.

IB 5.2 Non-attendance to the pre-bid meeting will not be a cause for disqualification of bidders but at the same time shall not entitle him to raise any query at a later date.

IB 6.0 Clarification of Bidding Documents:

IB 6.1 Should there is any discrepancy or obscurity in the meaning of any clauses of the bid document, all such queries need to be sent to GM (Customer Relation) via mail to gmcrbescom@gmail.com or bescommarketing@gmail.com hard copy to The General Manager (Customer Relations), Corporate Office, BESCOM, K. R. Circle, Bengaluru – 560 001 prior to and during pre-bid meeting. The clarification given in pre bid meeting shall be final, part of the bid document and binding on the bidder.

IB 7.0 Notifications/ Amendments/ Addendum of Bidding Documents:

IB 7.1 At any time, normally, prior to the dead line of submission of Bid, BESCOM may, for any reason, reserves right to cancel or modify the bidding documents by issuing necessary notifications/ Addendum / Amendments without assigning any reasons.

IB 7.2 Any notification/ addendum/ amendments thus issued shall be part of the bidding document and shall be communicated through E-procurement portal.

IB 7.3 Notification of cancellations shall be communicated through the e-procurement portal.

IB 8.0 Earnest money deposit:

IB 8.1 All bids must be accompanied with a refundable earnest money of **Rs. 1,44,05,000=00** as mentioned in the e-procurement portal. **Up to Rs.10.00 Lakhs** (Rupees Ten Lakhs only) shall be paid electronically through any of the four e-payment modes mentioned in the e-procurement Portal and the balance of **Rs. 1,34,05,000=00** in excess of **Rs.10 Lakhs** shall be in the form of Bank Guarantee (BG). Original Bank Guarantee shall be submitted on or before the last day of bid submission at the office of the General Manager (Customer Relations), Third Floor, BESCOM, Corporate Office, K.R. Circle, Bengaluru - 560 001. Copy of BG shall be uploaded in the e-procurement portal.

IB 8.2 The earnest money deposit shall remain valid for **180 days** from the schedule date of submission of bid documents.

IB 8.3 Instruments having fixed validity issued as earnest money deposit for the tender shall be valid for 45 days beyond the validity of the tender

IB 8.4 Any tender not accompanied by an acceptable earnest money deposit and not secured as indicated in Sub-

Clauses IB 8.1, IB 8.2 and IB 8.3 above shall be rejected by the Employer as non-responsive

IB 8.5 The earnest money deposit of unsuccessful Tenderers will be returned within 30 days of the end of the tender validity period specified in Sub-Clause IB 8.2

IB 8.6 The successful bidder's Bid Guarantee will be discharged when the Tenderer has signed the Agreement and furnished the required Performance Security as stipulated elsewhere in the Bid Documents.

IB 8.6 The deposit towards EMD shall not carry any interest.

IB 8.7 Permanent EMD will not be considered.

IB 8.8 Bids shall be rejected, in case, the requisite EMD is not deposited

IB 8.9 **The** earnest money deposit **shall be liable for forfeiture in the following cases:**

IB 8.9.1 If during the period of Bid validity, the bidder unilaterally withdraws or modifies its bid as a whole or in part; or

IB 8.9.2 In case of successful bidder, if the bidder fails to accept the order unconditionally or fails to furnish the contract performance guarantee as per stipulation of bid documents; or

IB 8.9.3 If any cartel is formed by the bidders in their quotations; or

IB 8.9.4 In case of successful bidder, if the bidder fails to implement the Pilot operation successfully; or

IB 8.9.5 (a) if the Tenderer withdraws the Tender after tender opening during the period of tender validity; or
(b) if the Tenderer does not accept the correction of the Tender Price; or
(c) in the case of a successful Tenderer, if the Tenderer fails within the specified time limit to
(i) sign the Agreement; or
(ii) furnish the required Security deposit

IB 9.0 Language of Bid:

IB 9.1 The bid prepared by the bidder and all correspondences and documents relating to the bid, exchanged by the bidder and BESCOM, shall be written in English or Kannada language only. Failure to comply with this condition shall disqualify a bidder.

IB 10.0 Currencies of Bid and Payment:

IB 10.1 All prices shall be quoted by the bidder in "Indian Rupees" (INR) only.

IB 11.0 Period of validity of Bid:

IB 11.1 The bid shall remain valid for a period of **180** (One hundred and Eighty) days from the schedule date of bid submission. A bid, valid for a shorter period shall be rejected by BESCOM as non-responsive.

IB 11.2 In exceptional circumstances, BESCOM may solicit the Bidder's consent to extend the period of validity. The request and the response thereto shall be made in writing (including Fax or E-Mail). In such an event the Bid Security provided under Clause IB 8.0 shall also be extended by the same period as the extension in the validity of the Bid. A Bidder may refuse the request without becoming liable for forfeiture of his Bid Security. A Bidder agreeing to the extension will not be required or permitted to modify its Bid

IB 11.3 Information required with technical proposal:

IB 11.3.1 The bid must clearly indicate the name of the bidder, the type of material/services to be supplied/ provided. For purpose of these clauses, a substantially responsive Bid is one, which conforms basically to all the terms and conditions of the Bidding Documents without material deviation & confirming to technical specifications. Bidder shall furnish the certificates as per **Annexure-I & II.**

IB 11.3.2 Documentary evidence in respect of qualifying requirements shall be uploaded by the bidder in the form of Electronic/scanned copies in the e-procurement Portal by the participating Bidders.

IB 12.0 Price proposals:

IB 12.1 The Bidder shall quote item wise Prices in the e-Procurement portal including GST and statutory levies

IB 12.2 The price quoted for Item – 4 will be considered as a rate contract. The payment to the successful bidder for this item shall be made on actual utilization basis as per the requirement of the BESCOM, BESCOM reserves the right to utilize said services from the bidder during anytime in the contract period as per BESCOM Norms. The bidder shall provide said services at the accepted price during the contract period. The bidder has no claim on the minimum quantity for this Item during the contract period for non-utilisation of the services. BESCOM reserves right to cancel the rate contract during the performance of the contract period

IB 12.3 The Bidders shall quote on **FIRM** price basis. The prices shall be Firm throughout the period of Contract. The prices shall be quoted in Indian Rupees (INR)

IB 12.4 GST and other statutory levies if any are as per actuals in force.

IB 13.0 Cost of Bidding:

IB 13.1 The bidder shall bear all costs associated with the preparation and submission of his bid and BESCOM in no case shall be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

IB 14.0 Opening and Evaluation of Bids:

IB 14.1 The tender will be opened as detailed below in the presence of bidder/bidder’s authorized representative(s) who choose to attend at the scheduled date and time.

The bidders representatives who are present shall produce authorisation letter and shall sign the register evidencing their attendance.

IB 14.2 On the schedule date & time of opening of the tender, Techno-commercial bid will be opened through E-procurement portal.

IB 14.3 Date & time of opening of Price bid will be communicated later to the eligible bidders.

IB 14.4 No electronic devices will be permitted during bid opening for recording.

IB 14.5 To assist in the examination, evaluation and comparison of bids BESCOM may, at its discretion, ask the bidder for a clarification of its bid. The request for clarification and the response shall be in writing and no change in the price or substance of the bid shall be sought, offered or permitted.

IB 14.6 BESCOM will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required witnesses have been furnished, whether all the necessary documents have been properly uploaded, and whether the bids are generally in order.

IB 14.7 BESCOM may waive any minor informality or non-conformity or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.

IB 14.8 After opening the price bids, price evaluation will be done as per Clause IB 14.10

IB 14.9 Bids shall be deemed to be under consideration immediately after they are opened and until such time official intimation of award/ rejection is made by BESCOM to the Bidders. While the bids are under consideration, Bidders and/ or their representatives or other interested parties are advised to refrain from contacting by any means, BESCOM and/ or his

employees/ representatives on matters related to the bids under consideration. BESCOM, if necessary, will obtain clarifications on the bids by requesting for such information from any or all the Bidders, either in writing or through personal contacts as may be necessary. Bidders will not be permitted to change the substance of the bids after the bids have been opened.

IB 14.10 Evaluation of Lowest Bidder: The following criteria will be followed for the evaluation of the Lowest commercial bidder.

1. The bidder shall quote the price individually for the "Cost of Supply & Maintenance of SBD / without supply of SBD with Maintenance of SBDs, with Software & Server setup / without software & Server setup, Support Manpower, Internet Connectivity, Stationaries & consumables etc., at the rate of "Per active Installation Per Month", and "Cost of Providing Man Power for Meter Reading and issuing of energy bills at the spot at the rate of Per each active Installation Per Month" as per scope of Work provided in the e-procurement portal. The price entered in the e-procurement portal shall be inclusive of all applicable taxes and bidder shall provide the Tax break up in the e-procurement portal.
2. Lowest price will be evaluated based on the weightage of the service item as follows,

a. The weightage for Item-1 i.e. "Cost of Supply and Maintenance of SBD and other hardwares, Software, Server setup, Support Manpower, Internet Connectivity, Stationaries & consumables etc., at the rate of Per active Installation Per Month (By utilising successful agency supplied SBDs)", **27.097** weightage.

b. The weightage for Item-2 i.e. "Cost of Supply and Maintenance of SBD and other hardwares without billing Software and Server, with Support Manpower, Internet Connectivity, Stationaries & consumables etc., at the rate of Per active Installation Per Month (By utilising software and server developed by the IPDS agency after

successful go live of IPDS project)", **22.818** weightage.

c. The weightage for Item-3 i.e. "Cost of Maintenance of SBD and other hardwares without billing Software and Server, with Support Manpower, Internet Connectivity, Stationaries & consumables etc., at the rate of Per active Installation Per Month (By utilising software and server developed by the IPDS agency after successful go live of IPDS project and by utilisation of BESCOM procured SBDs)", **2.025** weightage.

d. The weightage for Item-4 i.e. "Cost of Providing Manpower resource for Meter Reading and issuing of energy bills at the spot as per the scope of work and other activities as desired by BESCOM. Rate quoted shall be Per active bill per month issued by the Firm's Meter Reader" is **48.060** weightage.

3. The above weightage percentage is arrived based on item wise estimated cost over the total estimated cost.
4. The price quoted by the bidder in the e-procurement portal for each item will be multiplied by the respective weightage as stated above. The Summation of the final value after multiplying with the weightage will be the price evaluation index.
5. The least price evaluation index quoted bidder shall be considered as the lowest bidder of the Tender. Following is the evaluation illustration.

Sl. No.	Description	Example Price to be quoted in the E-Proc including GST.	Weightage	Price Evaluation index
1	Cost of Supply and Maintenance of SBD and other hardwares, Software, Server setup, Support Manpower, Internet Connectivity, Stationaries & consumables etc., Per active Installation Per Month **(By utilising agency supplied SBDs)**	**3.00**	**27.097**	**81.290**
2	Cost of Supply and Maintenance of SBD and other hardwares without billing Software and Server, with Support Manpower, Internet Connectivity, Stationaries & consumables etc., Per active Installation Per Month **(By utilising software and server developed by the IPDS agency after successful go live of IPDS project)**	**2.50**	**22.818**	**57.046**
3	Cost of Maintenance of SBD and other hardwares without	**2.00**	**2.025**	**4.050**

	billing Software and Server, with Support Manpower, Internet Connectivity, Stationaries & consumables etc., Per active Installation Per Month **(By utilising software and server developed by the IPDS agency after successful go live of IPDS project and by utilisation of BESCOM procured SBDs)**			
4	Cost of Providing Manpower resource for Meter Reading and issuing of energy bills at the spot as per the scope of work and other activities as desired by BESCOM. Rate quoted shall be Per active bill per month issued by the Firm's Meter Reader.	**9.00**	**48.060**	**432.543**
Price Evaluation Index Total				**574.928**

Bidder having least Price Evaluation Index Total will be treated as lowest commercial bidder

IB 14.11 It is absolutely essential for the bidders to quote the lowest price at the time of making the offer in their own interest, as BESCOM will not enter into any price negotiations, except with the lowest quoting bidder, whose offer is found to be fully technically compliant.

IB 14.12 The item wise rates quoted in the e-procurement portal by the **Bidder having least Price Evaluation Index total** will only be considered for negotiation/award.

Note : The above illustrated price sheet template is not possible to create in the e-procurement portal, as such the existing works / goods tender price sheet template is used for this tender. Therefore, the value indicated against "Actual Quantity" in the price bid / schedule of e-procurement portal shall be read as "Weightage" and the amount shown in the e-procurement portal after multiplying quoted item rate per active installation per month with that of weightage shall be read as "Price Evaluation Index" of that item and sum of such "Price Evaluation Index" is the "Price Evaluation Index Total". The Bidder who has quoted least Price Evaluation Index total will be treated as lowest quoted Bidder.

IB 15.0 Acceptable Dispute/legal Redressal Mechanism:

IB 15.1 In case of any dispute arising out the contract, the same shall normally be settled amicably through meeting between the BESCOM and the vendor at the appropriate level. The decision of the MD, BESCOM is final.

IB 15.2 If the Contractor is not satisfied with the decision taken by the Employer, the dispute shall be referred by either party to Arbitration within 30 days of the notification of the Employer's decision.

IB 15.3 If neither party refers the dispute to Arbitration within the above 30 days, the Employer's decision will be final and binding.

IB 15.4 The Arbitration shall be conducted in accordance with the arbitration procedure stated in the clause IB 15.7

IB 15.2 The disputes arising out of the contract shall be exclusively within the jurisdiction of Bengaluru Court only.

IB 15.3 The Bidder should not have any court cases/ legal disputes with BESCOM.

IB 15.7 Arbitration (Clause 24)

IB 15.7.1 The procedure for arbitration shall be as follows:

(a) In case of dispute or difference arising between the Employer and the Contractor relating to any matter arising out of or connected with this agreement it shall be settled in accordance with the Arbitration and Conciliation Act 1996. The disputes or differences shall be referred to a Sole Arbitrator. The Sole Arbitrator shall be appointed by agreement between the parties; failing such agreement, by the Appointing Authority (any one of the Organizations as per list enclosed in Annexure)

(b) Arbitration proceedings shall be held at Bengaluru, Karnataka, India

(c) The cost and expenses of arbitration proceedings will be paid as determined by the Arbitrator. However the

expenses incurred by each party in connection with the preparation, presentation, etc., shall be borne by each party itself.

(d) Performance under the contract shall continue during the arbitration proceedings and payments due the Contractor by the Employer shall not be withheld, unless they are the subject matter of the arbitration proceedings.

IB 16.0 Communication mode:

IB 16.1 The bidders, for communicating with BESCOM, for this job may use the following email-Id bescommarketing@gmail.com **OR** gmcrbescom@gmail.com.

IB 17.0 Representative of vendor:

IB 17.1 The successful bidder is required to nominate one person exclusively for this project from commencement to completion as a Single-Point contact, with whom BESCOM will interact on all matters related to the contract.

IB 17.2 The successful bidder has to specifically furnish to BESCOM, the name, designation, mobile no., residential phone no. of his authorized representative.

IB 18.0 The bidder having the following pre-qualifying requirements are eligible to participate in the tender:
The essential minimum qualifying requirements are as under:

Sl. No.	Qualifying Requirements	Documents to be uploaded
	Technical Requirements:	
1	The bidder should be a registered as a Private Limited or Public Limited under companies act 2013 or a Partnership Firm or a LLP or a Proprietorship Firm and also registered with EPF, ESI, GST and Income Tax Departments.	All Certificates related to registration are to be uploaded.
2	The bidder should have ISO 9001-2008 or above version pertaining to	Copy of certificates shall be uploaded

	QMS (Quality Management System) and ISO 27001-2013 or above version pertaining to ISMS (Information Security Management system) certification related to information technology as on the date of the tender notification, ISO 20000-1:2011 or Above certification software/IT related services. Bidder should own these Certificates as on the date of tender notification.	
3	The Bidder must have been assessed and possess a valid SEI/CMMI Institute certified CMMI level 4 or above. Bidder should own this certificate as on the date of tender notification.	Copy of SEI/CMMI certificates or publish list shall be uploaded.
4	The Bidder should have experience of implementing "Billing & Collection Software solution" OR "Web based Total Revenue Management Software Solution"; through its own software or through COTS (SAP/Oracle, etc.) software in at least two Govt undertaking DISCOM/ESCOMs in India during last five years, but experience is must for a continues period of Twelve months in each utility and project is operational at least in any one utility as on the date of the bid. Out of the above projects, One project should be in any ESCOMs of Karnataka covering at least 53.60	Copy of orders and performance certificate for the proof of experience shall be uploaded and the details shall be filled in the format enclosed as **Sch-3 (1 of 9)** of Techno-Commercial sheet.

	Lakhs bills per month.	
5	The bidder should have proven and working solution of software integration with billing and collection data of RAPDRP system in any ESCOMs of Karnataka.	Copy of the Order & performance certificate to substantiate the said software feature shall be uploaded and the details shall be filled in the format enclosed as **Sch-3 (2 of 9)** of Techno-Commercial sheet.
6	Bidder as a prime contractor should have satisfactorily completed at least one similar work such as experience of implementing "Billing & Collection Software solution" OR "Web based Total Revenue Management Software solution, including providing Man power service for meter reading of value not less than **Rs. 72.02 Crores** during the last 5 years **Note:** Updated to the FY in which the tenders are invited. The value of the completed works shall be given a weight of 10% per year to bring them to the price level of the FY in which the tenders are invited	Copy of the DWA/PO and performance certificate shall be uploaded and the details shall be filled in the format enclosed as **Sch-3 (3 of 9)** of Techno-Commercial sheet.
7	Bidder should have generated at least 643.20 lakhs Electricity bills in any one year, during the last 5 years	Copy of the DWA/PO and performance certificate shall be uploaded and the details shall be filled in the format enclosed

		as **Sch-3 (4 of 9)** of Techno-Commercial sheet.
8	Bidder should be an OEM/Supplier of the "Android OS Based integrated Spot Billing Devices (SBD)". The proposed Device OEM/ Supplier should have past experience in supply and maintaining at least **Two Thousand Four hundred & Fifty Six** numbers of SBD to any DISCOMs of India in any one year during the last five years for the purpose of billing, spot collection and other activities. If the Bidder is a Supplier then MAF as per **Annexure-VIII** from the OEM shall be submitted along with the required documentary evidence of the OEM who have met the past supply & maintenance.	The following documents shall be uploaded: i. Documentary evidence for the proof of OEM. ii. Copy of the DWA/PO and certificate for the proof of OEM/Supplier for having supplied and maintained SBDs. iii. If the Bidder is a Supplier, then MAF as per **Annexure-VIII** along with the necessary documentary evidence of the OEM, if bidder is the OEM a self-declaration along with above mentioned documentary evidence. The details shall be filled in the format enclosed as **Sch-3 (5 of 9)** of Techno-Commercial sheet
9	The bidder should have at least 2 years of experience in providing Man Power Services for Meter Reading activity and issue of bills to the consumer at the spot in any	Copies of Work Awards and satisfactory performance Certificates shall be

	DISCOMs of India. The said work should be operational as on the date of the Tender.	uploaded and the details shall be filled in the format enclosed as **Sch-3 (6 of 9)** of Techno-Commercial sheet
10	No Consortium/Joint Venture will be allowed as a part of bid.	Written Self-declaration on the letter head shall be uploaded.
	Financial Requirements:	
11	The **Annual Turnover** of the Bidder in at **least two financial years in any of the previous five financial years i.e., (FY 2018-19, 2019-20, 2020-21, 2021-22 & 2022-23)** should not be less than **Rs. 144.04 Crores.** **Note :** The previous years turnover of the bidder is updated to the FY in which the tenders are invited. Financial turn over of previous years shall be given a weight of 10% per year to bring them to the price level of the FY in which the tenders are invited	Certified copies of audited financial statements such as P&L statement, Balance sheets for the (FY 2018-19, 2019-20, 2020-21, 2021-22 & 2022-23) shall be uploaded and the details shall be filled in the format enclosed as Sch-3 (7 of 9) of Techno-Commercial sheet. In case, audited annual accounts for the FY 2022-23 is not finalized, provisional un-audited annual accounts duly certificated by the Chartered Accountant shall be uploaded.

12	The Liquid assets of the Bidder as on **31.07.2023** or at a later date before submission of the bid consisting of Cash at Bank + Term Deposits + Availability of fund based credit facility in any Nationalized/scheduled Bank should not be lesser than **Rs. 18.01 Crores.**	If the bidder has banking in multiple banks, then available Liquid assets balance mentioned above on a particular date i.e., as on **31.07.2023** or at a later date before submission of the bid should be the same date for all banks.The cash at bank, bank deposits and availability of fund based credit facilities shall be supported by a certificate issued by Nationalized/ scheduled Bank shall be uploaded. In case of Fund based credit facility, the certificate issued by the Nationalized/ Scheduled Bank duly mentioning sanctioned limits, funds utilized so far and balance available as on **31.07.2023** or at a later date, before submission of the bid shall be uploaded and the details shall be filled in the format enclosed as Sch-3 (8

		of 9) of Techno-Commercial sheet

13	Bidders who meet the above specified minimum qualifying criteria, will only be qualified, if their available tender capacity is more than the total tender value. The available tender capacity will be calculated as under: Assessed available tender capacity = (A*N*1.5 - B) Where, A = Maximum value of works executed in any one year during the last five years ((updated to FY 2023-24 price level) taking into account the completed as well as works in progress. N = Number of years prescribed for completion of the works for which tenders are invited. B = Value, at FY-2023-24 price level, of existing commitments and on-going works to be completed during the next 2 years (period of completion of the works for which Tenders are invited)*	The bidder shall upload statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Employer in charge, not below the rank of an Executive Engineer or equivalent and the details shall be filled in the format enclosed as Sch-3 (9 of 9) of Techno-Commercial sheet
III	**General Requirements:**	
14	Even though the Tenderers meet the above criteria, they are subject to be disqualified if they have: i) made misleading or false representations in the forms,	Self-declaration in the prescribed format as per **Annexure - IX** shall be uploaded.

	statements and attachments submitted in proof of the qualification requirements; and/or ii) record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.; and/or iii) participated in the previous Tender for the same work and had quoted unreasonably high tender prices and could not furnish rational justification.; and/or	
15	As on date of submission of the bid, the Bidder should not be under a declaration of ineligibility for corrupt or fraudulent practices with any of the State government or Central Government or PSU or Municipal agencies in India or Abroad at the time of submission. **OR** As on date of submission of the bid, the Bidder must not have been blacklisted or banned or debarred. **OR** As on date of submission of the bid, the Bidder who's work orders have been short closed due to non-performance or who's LOA is withdrawn by the owner due to inefficiency of the bidder in performing or implementing assigned project in	Self-Declaration on Non-Judicial stamp paper of appropriate value, duly notarized as per **Annexure-X.** **Note**: The bidder shall declare on Non-Judicial stamp of appropriate value that the information furnished by them are true and correct. If BESCOM found that any misleading information and/or suppressing of the facts by the bidders, BESCOM shall reject the bid and such bidder will be black listed including initiation of

	technically/financially are not eligible to participate in this bid.	legal/criminal proceeding. The decision of the BESCOM shall be final in this regard.
16	Any Bidder from a country which shares a land with India will be eligible to bid in this tender only if the Bidder is registered with the Competent Authority. "**For details Please Refer Note 1**"	Registration certificate issued by the competent authority shall be uploaded.
17	A certificate for having read the clauses is required to be submitted/uploaded by the tenderer separately in the following format: I have read the clause regarding restrictions on procurement from a Bidder of a country which shares a land border with India; I certify that this Bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this Bidder fulfils all requirements in this regard and is eligible to be considered. (Where applicable, evidence of valid registration by the Competent Authority shall be attached.) **Note:** **Procurement of Spare parts and other essential service support like Annual Maintenance Contract (AMC)/ Comprehensive Maintenance Contract (CMC), including consumables for**	Self-declaration in the prescribed format / certificate as per **Annexure – XI** shall be uploaded.

	closed systems from Original Equipment Manufacturers (OEM's) or their Authorized agents, shall be exempted from the requirement of registration as mandated under Government Order No: FD 455 Exp-12 2020 dated.25.08.2020. “**For details Please Refer Note 1**”	

Note 1:

As per the Government Order No. : FD 455 Exp-12 2020 dated.25.08.2020, FD 455 Exp-12 2020 dated. 10.03.2021 & : FD 455 Exp-12 2020 dated.29.03.2021-clarification to the Sl. No.10 & 11 above are as follows:

“Bidder (including the term tenderer’, Consultant or service provider in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

“Bidder from a country which shares a land border with India” for the purpose of this Order means:- a. An entity incorporated, established or registered in such a country; or
b. A subsidiary of an entity incorporated, established or registered in such a country; or
c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
d. An entity whose beneficial owner is situated in such a country; or
e. An Indian (or other) agent of such an entity; or
f. A natural person who is a citizen of such a country; or
g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.
I. The beneficial owner for the purpose of above clause will be as under: (i) In case of a company or Limited Liability Partnership, the beneficial owner is the natural person (s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means. Explanation- a. “Controlling ownership interest” means ownership of or entitlement to more than twenty-five percent of shares or capital or profits of the company; b. “Control” shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
(ii) In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

(iii) In case of an un-incorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
(iv) Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
(v) In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
IN CASES WHERE SUB CONTRACTING IS PROVIDED: A certificate is required to be submitted/ uploaded by the Tenderer in respect on sub-contracting separately in the following format: “I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. (Where applicable, evidence of valid registration by the Competent Authority shall be attached.)”
As per circular FD 455 Exp-12 2020 dated. 10.03.2021 : A Bidder is permitted to procure the raw materials, components, sub-assemblies etc from the vendor from countries which shares land border with India. Such vendor will not be required to be registered

with the Competent authority, as this is not regarded as sub-contracting. However incase a Bidder has proposed to supply finished goods procured directly / indirectly from the vendors from the countries sharing land border with India, such venders will be required to be registered with Competent authority.
As per circular FD 455 Exp-12 2020 dated.29.03.2021 Procurement of Spare parts and other essential service support like Annual Maintenance Contract (AMC)/ Comprehensive Maintenance Contract (CMC), including consumables for closed systems from Original Equipment Manufacturers (OEM's) or their Authorized agents, shall be exempted from the requirement of registration as mandated under Government Order No: FD 455 Exp-12 2020 dated.25.08.2020.

Section: 2

Scope of Work (SW)

SW 1.1 The Service Provider shall provide Hardware, Software, Connectivity, Stationery and Manpower for Real Time (On-line) Spot Billing, Collection, Disconnection, Reconnection and surveys for Data Base Updations and its Integration with RAPDRP/IPDS System.

SW 1.2 All the existing **Android OS based Integrated Spot Billing Devices (SBD) are to be taken back by the successful Bidder on as is where is basis, as such the prospective Bidders are required to inspect the condition of these SBDs and the per active installation per month rate shall be quoted considering the buy back of existing SBDs. The existing SBDs are have the** warranty period of 3-Years, out of 3 years warranty period, two years five months warranty period is completed.

SW 1.3 The successful Bidder shall replace all the existing SBDs with brand new devices of specification with OCR technology as stipulated in this tender or advanced technology SBD's approved by BESCOM. As such, the successful Bidder should provide SBD services with billing software and supply and maintenance of DC – DRC servers / other hardwares and transferring the bills generated information to the RAPDRP servers and up-dation of collection / disconnection in the 25 towns of BESCOM which are covered under RAPDRP system by utilizing the brand new SBD's supplied by the successful Bidder. The SBDs required for the increase in the consumer base in both the RAPDRP and IPDS areas are to be provided by the successful Bidder without any additional cost to BESCOM.

SW 1.4 Under IPDS IT Phase – II, in the 20 towns of BESCOM which are now covered under Non-RAPDRP area and in the 25 towns of RAPDRP area, the contract for implementation of DC-DRC Hardware and Software refresh across all ESCOMs of Karnataka is being

executed and as per the scope of the contract, the SBD billing software is a part of IPDS project. The SBDs required for the 20 IPDS towns have been procured by BESCOM and will be supplied to the successful Bidder and the successful Bidder should provide the SBD services without billing software with SBDs supplied by BESCOM and also provide all other hardwares, consumables required for the SBDs, the stationary, internet and other services as per the scope of the tender.

SW 1.5 Consequent to go live of IPDS IT Phase – II project or successful implementation of IPDS IT Phase – II project in BESCOM after monitoring its performance, BESCOM shall continue to avail the services of SBD in the both RAPDRP and IPDS areas without billing software with the BESCOM supplied SBDs for the IPDS area and agency supplied SBD's for the RAPDRP area. The consumers of IPDS area will be merged to RAPDRP area. The successful Bidder shall co-ordinate with IPDS / Non-RAPDRP agency and the SBD's should be in compliance with the software protocol of IPDS / Non-RAPDRP project and provide the services using the billing software of IPDS project. The contract is continued with the maintenance of SBDs and with reduced scope i.e., without the billing software of SBDs and rest of the services are continued as defined in the tender.

SW 1.6 These tenders are being invited, processed and awarded subject to condition that BESCOM shall have right to terminate the contract earlier than the contract period by giving 2 months prior notice in the event of BESCOM opt to any alternative solution in the RAPDRP/IPDS area.

SW 1.7 The Service Provider shall provide web based application software, required hosting servers, middleware server to integrate billing and collection data with RAPDRP/IPDS system/ software along with necessary firewalls and routers and all the operating system and the database application, secured internet with necessary bandwidth of Min 2MBPS, Android OS based Integrated Spot Billing Device (SBD) having advanced features of Touch screen, Camera, Scanner, Reader, Biometric, OCR, Integrated

with thermal printer and long lasting battery. **Indicative specification is mentioned in Annexure –V(C).**

The SDB shall be capable for issuing Spot Bills, Capture Defects/ Observations in the installations called “Meter Reader observations”, Spot Collection, and Capture Disconnection & Reconnection Details simultaneously or separately. The Pre and Post Data updations shall be on Real time basis and Offline in case of exigencies.

SW 1.8 The interface application software for the spot billing device shall be developed by the successful bidder **as per the prevailing KERC Tariff structure & Government Tax Structures in force** and bills shall be generated in the prescribed format [**Annexure-IV(A)**- Spot bill format]. Formats are subjected to change as per the requirement of BESCOM. Bills shall be generated and issued to customers by BESCOM Meter readers or GVP’s or BESCOM outsourced Meter Readers using spot billing devices at the customer premises for all Metered categories of installations. The pre-billing and post billing data should be downloaded/ uploaded to the server on real-time basis and Offline in case of exigencies.

SW 1.9 SBD should support manual reading, Auto download of reading from the meter through optical port or OCR Technology*, Auto capture of reading from RF and IR Technology enabled /Built – in RF Module & Built-in Irda Module meters without any additional cost to BESCOM. During billing, the system should logically identify the meter with meter serial number and it should be able to capture meter time stamp, Max Load, KWH, KVAH and power factor, etc which will be used during the billing. For Optical Port reading, required interface cables shall be provided along with the devices. High level process flow is enclosed as **Annexure-IIIA and Annexure - IIIB**.

*Optical character recognition (OCR) is a process that translates scanned or printed image documents into a text format. Once the image is scanned, it can be converted into an ASCII or Unicode format so it can be used as text. A typical OCR program performs several techniques to extract text with some pre-processing and

post-processing techniques, along with few optimizations to increase the accuracy. The main focus is to deploy an OCR program combined with an application which can extract readings from electricity meters and convert them to machine readable code and issue electricity bills to the consumers at the spot. The SBD devices should have inbuilt Optical Character Recognition technology and able to capture meter time stamp, Max Load, KWH, KVAH and power factor, etc which will be used during the billing and capable of generating the accurate energy bills using this technology.

Further the system should support to install and operate any apps of BESCOM at no extra cost.

SW 1.10 The Service provider shall provide One SBD along with connecting cable [SBD SET] for every 2400 live installations Plus 10 % spare SBD SET on the Total Quantity to be supplied. Spare devices shall be given to the custody of Sub-Divisional Officer. These SBD sets shall have the warranty period of 3-Years. The same shall be replaced with brand new devices of same specification or advanced technology SBD for the extension period if BESCOM desires to extend the same beyond 3-years at no extra Cost. Additional SBDs shall be provided for increase of every 2400 installations per SDO of BMAZ/ Other Zones respectively to the concerned SDOs.

All the consumables of the SBDs such as Battery, Printer etc., are included in the scope of the contract and successful agency shall replace these consumables as and when required without any additional cost to BESCOM.

The Existing SDO wise list of LT Active Installations is enclosed as **Annexure-VI**.

SW 1.11 The required Hardware, software licenses and stationery for both spot billing and collection through SBD to meet the day to day activities at each Sub-Division/ Section offices shall be supplied by the

successful bidder. The operations of the spot collection will be carried out by the staff of BESCOM and actual handling of cash, cheques and drafts etc. will be done by BESCOM officials only. Spot Collection should support Cash, Cheque, Demand draft, Card Payments.

SW 1.12 In case of offline exchange of data between RAPDRP/IPDS system and Central Server of the Service provider, the Service Provider should be in a position to exchange data through FTP or any other modes defined by the utility. The software implemented by the SP should be capable to exchange the data on a daily basis at prescheduled timing/ frequency defined by the BESCOM.

SW1.13 Successful Bidder to provide secured Connectivity of minimum bandwidth of 2MBPS including associated hardware to carryout day to day activities smoothly. Approximately connectivity of minimum of 2 Mbps should be provided at each Sub-Division office for smooth functioning.

System should support Real Time Meter Reading Monitoring:

a) Every Meter Reading Trip of RAPDRP/IPDS system shall be linked to the concerned Zone, Circle, Division, Sub-Division, Section, Area, Meter Reader Name, Allotted device ID, Mobile Phone Number, email_id.

b) Real Time Alerts via SMS and Email shall be sent to the Concerned Meter Reader instantaneously if download and upload is not done within the scheduled timelines and also at agreed intervals to till the compliance is received from the Meter Reader.

c) Download and upload violations shall also be escalated to the BESCOM defined higher authority for taking action and update the compliance.

d) Photo capture shall be made mandatory for DL/MNR/MBO cases and same should be uploaded.

e) Bio-metric login for the meter reader is mandatory and same shall be prompted for every 5-10 minutes idle time based on the BESCOM requirements.

f) Provision shall be available to take out various summary reports from the SBD before start, end and while reading in progress

SW 1.14 SBD shall be capable to Capture of Field activities like Disconnection and Reconnection and Meter Reader Observations etc. and transfer the data to RAPDRP/IPDS System on real time basis and/ or offline mode defined by utility.

Back up file of uploads and downloads shall be made available and pushed to RAPDRP/IPDS system in case the same is required by RAPDRP/IPDS system.

SW 2.0 The Attendance and assigned work of the Meter Reader shall be automatically monitored and necessary Alert system and MIS system shall be provided. MIS shall be provided in all dimensions

SW 2.1 **Provision to supply, configure and Installation of RFID/NFC permanent metallic sticker at Meter (Optional at the discretion of BESCOM, considered as a Rate Contract Item for fixing the item Rate): Deleted**

SW 2.2 SBD shall be compatible to capture any other field/ consumer/ asset information, survey details as and when required by the utility for its business purposes and transfer the data to RAPDRP/IPDS System on real time basis or offline mode as defined by utility.

SW 2.3 System shall be capable to monitor Real Time Disconnection and Reconnection, by the Area LM/Meter Readers etc. and transfer the data to RAPDRP/IPDS System on real time basis or SFTP mode. Defaulter List/ List of Consumers for Reconnection shall be pushed to the area LM/ MR on real time basis and capture Disconnection and Reconnection Details in the SBD also in web application as per the requirement of the

BESCOM and transfer the data to the RAPDRP/IPDS system on real time and offline modes.

SW 2.4 To comply any modifications to existing functionality or implementation of new functionality as per the business requirement, Tariff Revisions, directives from KERC, State and Central Governments during the performance of the contract at free of cost within the timeline stipulated by the Company.

SW 2.5 One Desk-top PC as per specification loaded with Microsoft office 365 and Licensed Anti virus along with one 2KVA UPS of 2 Hours backup and One laser printer with cartridge shall be provided for each of the Sub-Division for download and upload data and taking out various reports as per the requirement of BESCOM from time to time. Subsequent cartridge will be arranged by BESCOM.

SW 2.6 Provision shall be given to accept payments at Spot through the SBDs and necessary hardware, software, stationary shall be provided by the successful Service Provider.

SW 2.7 A**pplication should be built with bill calculation logic for all categories of consumers and Bill amount of SBD bill should exactly match with RAPDRP**/IPDS **generated bill.**

SW 2.8 The system shall be subjected to an exhaustive internal security audit. BESCOM reserves the right to engage a 3rd party auditor to evaluate system security. Any recommendations by the security audit agency shall be implemented within 30 days of the recommendation date.

During the contract period, the Service Provider shall be responsible for the following and the Cyber Security Guidelines is detailed in the **Annexure - VII**,

1) Ensuring that all software upon delivery is free of viruses, trapdoors, and other software contaminants, is purged of all sample scripts and sample code, and all default accounts and passwords removed or

disabled. Ensuring complete compliance to Cyber Security rules and norms devised by the country and defined by the Employer by undergoing any additional necessary audits, testing and verification by standard bureaus as indicated by the Employer

2) Before Go-live, compliance report for **OWASP Top 10 Vulnerabilities in 2022** from Cert-In empanelled Cyber Security Auditor shall be submitted to BESCOM.
3) The contractor shall be responsible to provide architecture details, access permission, hardware, bandwidth and apk/firmware/OS files required to the Cert-In empanelled cyber security auditor identified by BESCOM to carry out bi-annual cyber security audit of the IT/OT/IoT system at no additional cost to BESCOM.
4) Vulnerabilities identified in the delivered IT/OT/IoT system during bi-annual cyber security audit carried out by BESCOM shall be mandatorily fixed and compliance report submitted to BESCOM within the timelines defined by BESCOM at no additional cost to BESCOM.
5) Any additional work required to adhere to the guidelines / mandates issued by GOK / GOI shall be carried out by the contractor at no additional cost to BESCOM.
6) Any additional work required to give compliance to or fix the cyber security alerts issued by Cyber Swachata Kendra / Indicator’s of Compromise Advisories provided by NCIIPC on daily basis / CEA/ GOK / GOI shall be strictly adhered / complied to by the contractor at no additional cost to BESCOM.

SW 2.9 Scheduled maintenance shall be held in non-working hours and BESCOM staff should be informed of such maintenance well in advance.

SW 2.10 The details of clause SW 2.8 and the Cyber Security Guidelines detailed in the Annexure VII must scrupulously complied for all the hardware and software supplied in this project.

SW 3.0 The software to be centrally controlled and installed in each of the SBD devices. SP shall have an existing version of the application software largely addressing the requirements specified in this RFP, which it shall suitably customize and configure to address BESCOM requirements.

SW 3.1 Tariff versions shall be maintained and configured for calculating the first bill falls between two different tariffs zones.

SW 3.2 The Android Operating System used in the SBD shall restrict installation of only certain mobile applications authorized by BESCOM.

SW 3.3 The required servers shall be hosted in a secured Data Centre (DC) and DRC at two different seismic zones. SP shall arrange for the inspection of servers hosted in the DC and DRC to the BESCOM officials.

SW 3.4 The data shall not be shared to any other source/agency without BESCOMs consent. else, legal action will be initiated. Data shall be stored only for a limited period as defined by the Utility. DC reports to be shared.

SW 3.5 All the licenses required for the project are to be secured in the name of BESCOM.

SW 4.0 Training:

The Service Provider shall give necessary training to Utility staff before implementation and also subsequently as per the requirement of BESCOM or as and when a new functionality or changes to the existing functionalities are implemented.

SW 4.1 KNOWLEDGE TRANSFER:

The SP should ensure that complete consumer data and commercial data is smoothly transferred to the new Service Provider / BESCOM at the end of the contract period or as and when the same is required by BESCOM without hiding any parameters. Necessary Technical support / training on maintenance should be ensured by SP in such an event for smooth functioning of the application software at the new Service Provider / BESCOM without any additional cost to BESCOM up to the satisfaction of BESCOM.

At the end of the Contract period, the SP shall ensure the following without any additional cost to BESCOM.

1. The SP shall provide Knowledge transfer project plan scheduled for a minimum period of one or more months.
2. The IT team of SP should be in a position to showcase the build and deploying part of the source code.
3. All the issues that were internally addressed by the SP should be handed over to new Service Provider / BESCOMs staff.
4. The SP should provide work instructions for setting master data.
5. The SP should provide server detail document (DC and DRC)
6. The SP should provide Network Diagram.
7. The SP should provide all licenses.
8. The Rigorous Knowledge transfer sessions are to be conducted for a minimum period one or more months, until the complete knowledge is transferred to the new Service Provider / BESCOMs staff which includes hand over of architecture, all licenses, flow charts, latest version of source code which is deployed in the production, security mechanism, process flow, operational hierarchy, various functionalities, logics etc.,
9. Rigorous hands on training sessions are to be conducted for a minimum period one or more months, until the complete hands on training is provided to the new Service Provider / BESCOMs staff which includes operation and maintenance of the complete system.
10. Even after giving rigorous knowledge transfer session / training, the SP shall render assistance to the new Service Provider / BESCOMs staff as and when

required by BESCOM for a period one year from the date of handing over.

SW 5.0 Warranty:

It is the responsibility of the Bidder to maintain all the hardware and software in good, healthy, updated conditions all the times and to take immediate action for the replacement of any failed hardware items such as SBDs, DC – DRC, Desktop PCs, Laser Printers, Battery, UPS etc., so that the services should not be hampered. If the warranty period of the any of the Hardware items such as SBDs, Desk top Computers, printers etc., is more than the Contract Period, same extended guarantee / warrantee shall be passed on to BESCOM. If the warranty period of the any of the Hardware items such as UPS etc., is less than the contract Period, then these items shall be replaced by brand new items if any of the items failed during the contract period. Software should have a lifetime warranty period.

SW 6.0 Manpower Support:

SW 6.1 Man power support of one resource with BE / Diploma qualification at each SDO to support software, hardware including repair and replacement of SBD connectivity and allied services as covered in the scope of the work along with sufficient number of spare man power and sufficient quantity of spares to maintain SBD Set and other hardware covered in the scope of the work. The services shall be available in all working days of BESCOM.

SW 6.2 Attendance of the Support personnel shall be maintained in each of the SDOs and shall be produced along with invoices.

SW 6.3 **Provision for manpower for Meter Reading and Issue of Bills at the Spot:**

The successful bidder shall provide the Meter Reader for the purpose of meter reading and issue of electricity bill

to the consumer at the spot based on the need and requirement of the BESCOM. The Meter Reader must have minimum qualification of ITI / JOC / PUC. The brief roles and responsibility of the Meter Reader to be provided are as follows,

a) Supplying man power for Reading of all the installations in the jurisdiction and shall issue spot bills from 1st to 15th of every calendar month or mutually agreed schedule irrespective of the Seasons without fail.
b) Meter readers shall read the energy meter in the consumer premises. Modes of capturing the reading shall be as per the BESCOM requirement, which also includes capturing time stamp, Max Load, KWH, KVAH and power factor, etc using OCR technology.
c) The meter reader shall issue the electricity bills on the Spot using the spot billing devices.
d) Defects/ Observations in existing installations if any shall be brought to the notice of Section Officers / Sub-Division Officers/ by recording in the meter reader's observation book or SBD.
e) Spot Serial DTC wise Inventory of installations shall be done & updated as per the instruction of the Section Officers / Sub-Division Officers.
f) In case of dispute in the reading the same shall be brought to the notice of concerned jurisdictional Engineer for further course of action.
g) BESCOM will show locations of the meters and furnish Meter Reading Sheet to the successful bidders personnel one time for which the successful bidders shall do the meter reading activity. BESCOM ensures the RR numbers or account ID is written at the meter box as per the standard rules and regulations.
h) The meter reader personnel provided by the successful Bidder shall assist BESCOM for the disconnection activity and any other activity / surveys after the completion of Meter Reading as desired by BESCOM.

i) It is responsibility of the successful bidder to carry out 100 % accurate billing at the assigned area. However BESCOM will provide necessary support.
j) Approximate number of meter reader needs to be deployed is Nine Hundred and Ninety Four

SW 6.4 BESCOM will issue separate orders for deployment of meter reading personnel as per the need and requirement and successful bidder shall arrange the required manpower for the Meter reading purpose within the mutual convenient time. The allocation of the installation to the successful bidder shall be area wise or DTC wise or feeder wise or O&M Unit wise.

SW 6.5 The successful bidder shall be paid per active billed installation per month basis for the work of meter reading as quoted/ awarded.

SW 7.0 Stationery & Consumables:

SW 7.1 **Successful** Bidder is responsible for providing sufficient quantity of one side pre-printed Thermal Billing Rolls for Spot Billing, Receipt Rolls for Spot Collection and Office Cash Counters. The pre-printed contents shall be as per the requirement of the BESCOM. Contents may vary from time to time. Billing & Receipt details shall be generated on a Top-quality 70 GSM thermal paper in Kannada & English (both languages) or in Kannada language only as per the requirement of BESCOM. Complete Billing and Receipt information shall be printed as per the current formats. Rear side shall be used for depicting the pre-printed General Instructions and messages to the consumers. BESCOM reserves right to vary the length & contents, the content shall include General Instructions, messages advertisements in the form Text or pictures or both in Text and pictures, either in black and white or in colour and Bidder shall provide according to the need and necessity of BESCOM without any additional cost implication to BESCOM. Sample Bill, Cash Counter Receipt, Spot Bill Receipt formats is given as **Annexure-IV (A) & (B)**. There are two types of cash printers in usage viz slip printer and dot matrix printer.

For dot matrix printer 1+1 pre-printed receipt rolls and for slip printers, blank rolls as per the existing format shall be provided. Bidder may approach SDO for further details. The size of the bill shall be 10 inches length and 76 to 78 mm width. One Ream of A4 Size 75 GSM white paper for every 5000 Active installations shall be provided for the SDO usage. Specification of Thermal Bill Rolls is given in **Annexure-V (F).**

SW 8.0 Server maintenance:

- Ensure Uptime of the server 24/7
- Periodical maintenance of the server
- Up-gradation of Server Hardware resources as and when required
- Repair & replacement of components
- Requisite tools shall be deployed to automatically compute server availability

SW 9.0 Process Operations Response Time (End to end):

- 90% of online transactions of 1 – 2 Sec to commit transactions with sub-second screen response times.
- 90 % of online simple query of 2 Seconds
- 90 % of online complex query of 3 to 5 Seconds

SW 10.0 Backup: Maintain the data backup periodically as per the mutually agreement requirement.

SW 11.0 Version control:

SW 11.1 Maintain the history of all previous versions of the software with documentation.

SW 11.2 Any new version of the software shall be deployed only after testing and certification from, corporate office, BESCOM.

SW 12.0 Testing and Acceptance procedures:

SW 12.1 A 3-member team comprising of one BESCOM representative, one vendor representative and one neutral member will evaluate compliance of the system to the UAT acceptance criteria specified below and take a decision on pilot clearance and final clearance.

SW 12.2 Create a test environment at Corporate office by installing executable application software, database and other related software for testing the various functionalities of Meter Reading, OCR, Billing, collection, Disconnection & Reconnection cash counter software, SBM software, MRI software etc.

SW 13.0 Pilot Operations:

BESCOM will verify the following for pilot clearance:

(A) Compliance of the implementation to "Basic" requirements specified in the tender.

(B) Generation of all types of bills (about 120 billing scenarios including SRTPV billing, net / gross metering) prescribed in KERC Tariff structure in the SBD and demonstration of its correctness with RAPDRP/IPDS Billing Logic in RAPDRP/IPDS software.

(C) Illustrate synchronization of billing and collection between CCB-Middleware- SBD.

(D) The piloting shall be completed within the period of Two months from the date of sharing the integration process by the IT Implementation Agency of RAPDRP/IPDS software under NDA (Non-disclosure agreement) or LOI whichever is later. The Piloting comprises the UAT and the execution. Based on the above results, DWA will be issued to implement the services.

(E) Pilot operation shall be carried out at bidder's own cost.

SW 14.0 Final clearance for issuing DWA:

BESCOM will verify the following for final clearance:

(A) Successful completion of pilot and POC mentioned in the **SW-13.**

(B) Acceptance of prototype SBD by BESCOM.

(C) Security audit of the system by a 3rd party agency engaged by BESCOM at the discretion of BESCOM.

(D) Compliance of terms and conditions of tender/LOI.

SW 15.0 Brand Names or Equivalent:

Wherever an equipment / material / component or article is specified or defined by the name of a particular brand, Manufacturer or Vendor, the specific name mentioned shall be understood as establishing type, function and quality and not as limiting competition.

Section: 3

General Terms & Conditions (GTC)

GTC 1.0 General Terms:

GTC 1.1 Changes, if any, in the bid document, shall be made only through E-procurement portal.

GTC 1.2 BESCOM reserves the right to review the bidder's capability and capacity to perform the work before awarding the Contract, without assigning any reason whatsoever.

GTC 1.3 BESCOM reserves the right to divide/ split/ modify/ cancel the entire job during placement of Contract without assigning any reason whatsoever.

GTC 1.4 The liability or obligation under the contract will remain fully with the service provider and is responsible for all acts.

GTC 1.5 Decision of BESCOM on all matters shall be final & binding on the bidders.

GTC 1.6 The Successful Bidder shall provide required man power/hardware and allied services to the new Sub-Divisions formed out of existing SDOs by way of Bifurcation due to Business requirements or addition of RAPDRP/IPDS Scope/ area. The SBDs shall be suitably adjusted/added on prorate basis without additional Burden on the BESCOM.

GTC 1.7 All the hardware including DC and DRC, software including licenses shall be handover to BESCOM at the end of the contract period.

GTC 2.0 Statutory Obligations:

GTC 2.1 Statutory obligations as per law of the land are to be complied with, by the vendor. Work men's Compensation Act 1923, the Contract Labour (Regulation & Abolition) Act 1970, Employees Provident Funds and

Miscellaneous Provisions Act 1952, Employees‟ State Insurance Act 1948, Payment of Wages Act 1936, Information Technology Act 2000 etc. and rules made there under for every act, are to be dealt with by the vendor as per relevant act and the financial obligation/s arising out of statutory obligations would be entirely on vendor's account and BESCOM will not be responsible on this score for any reason whatsoever.

GTC 3.0 Contract Period:

GTC 3.1 The initial contract shall be valid for a period of two years from the date of issue of Detailed Contract Award (DWA). The Contract may be extended at the discretion of BESCOM for further period of another one year based on the performance of the agency on mutually agreed terms and conditions, if BESCOM desires so.

GTC 3.2 BESCOM may terminate the contract earlier also, prior to expiry of contract period, with Two (2) months' notice, if the performance of the vendor is found to be Un- satisfactory.

GTC 3.3 These tenders are being invited, processed and awarded subject to condition that BESCOM shall have right to terminate the contract earlier than the contract period by giving 2 months prior notice in the event of BESCOM opt to any alternative solution in the RAPDRP/IPDS area.

GTC 4 Performance Bank Guarantee (PBG):

GTC 4.1 As a Contract Performance Security, the successful Bidder, to whom the work is awarded, shall be required to furnish a **Performance Guarantee @ 5% of the Annual Contract Value in favour of BESCOM.** The Performance Guarantee shall be in the form of Bank Guarantee from any nationalized/Scheduled Banks and it shall guarantee the faithful performance of the Contract in accordance with the terms and conditions specified in these documents and specifications. The PBG shall be valid up to **180 days** after the expiry of Contract Period.

If Service Provider fails to furnish the PBG within stipulated period, BESCOM reserve right to terminate the contract and forfeit the EMD.

GTC 4.2 Performance Guarantee will not carry any interest.

GTC 4.3 The above Performance Guarantee is to be submitted within twenty (20) days from the date of issue of the Letter of Intent (LOI) and shall remain valid up to One Hundred and Eighty **(180)** days after the expiry of contract period.

GTC 4.4 In case the contract is renewed, the successful bidder has to extend the validity of the Performance Bank Guarantee for a further period of One Hundred and Eighty **(180)** days after the end of the renewed contract Period.

GTC 4.5 The proceeds of the Performance Guarantee shall be payable to BESCOM as compensation for any loss resulting from the failure on the successful bidder's part to complete its obligations under the Contracts or if any Liquidated Damage is levied on the agency as per terms of the Contract.

GTC 5.0 Demo, Inspection, Testing, Review and Acceptance:

GTC 5.1 BESCOM reserves the right to have demo from the bidder on the process by its designated Officer or other agency to ensure quality and hassle free functioning of meter reading, billing, collection and other activities.

GTC 6.0 Force Majeure:

GTC 6.1 The successful bidder shall have no liability if prevented from carrying out obligations under the orders by reasons of war, invasion, foreign hostilities, war declared, riot, civil commotion, mutiny, fire, Govt. orders and/or restrictions or any other cause beyond the reasonable control of the successful bidder. However, such force-majeure circumstances are to be intimated immediately and to be established subsequently with

appropriate documents/proofs to the entire satisfaction of BESCOM. Variation of prices shall not be treated as force majeure.

GTC 7.0 Terms of payment:

GTC 7.1 The liability for payment to the Firm against the service for all Active Metered Installations will start only in the subsequent month of the successful generation and delivery of error free bills in respect of all kinds of consumers (all tariffs except HT categories) and generation of all the required periodical MIS and SBM reports and submission of all deliverables both at Sub-Division level and Corporate Office level. Payment shall be made at respective Division offices of BESCOM on monthly basis on submission of Invoice in duplicate along with attendance of the support personnel certified by the Asst. Accounts Officer and Assistant Executive Engineer (Elec.) of the respective Sub-Division and counter signed by the respective Executive Engineer (Elec.), C, O&M Division. The payment of first bill is subject to complying with the hardware and connectivity requirement by the Service provider. The Payment shall be subjected to pre-audit.

GTC 7.2 When BESCOM utilizes the services of meter readers, the payment to the Firm towards work of Meter Reading and issue of bill to the consumer at the spot shall be made on monthly basis for the number of bills issued to the consumer by the Firm’s personal/MR. The Firm shall submit the separate invoice in duplicate within 5th of every month to the respective Sub-Division Office pertaining to the bills issued to the consumer at the spot in the previous month. Payment shall be released to the Firm after the certificate from Concerned Sub-Division Officer and Division officer. The Payment shall be subjected to pre-audit.

GTC 8.0 Service Level Agreement (SLA):

GTC 8.1 SLA shall be levied for deficiency of service and non-deliverables by service provider are as follows:

A. <u>Availability of hardware and reporting servers, each to be evaluated individually as applicable</u>

Sl. No.	Criteria	Metric	Penalty	Measurement
1	Baseline	> 99.5%	Nil	Reports generated based on server logs, calculated on a monthly basis
2	Lower performance	97 – 99.5%	2% of MTC	
3	Breach	< 97%	5% of MTC	
Remarks ➢ MTC = Monthly Transaction charges due to the vendor for provision of the spot billing service specified in this RFP ➢ Scheduled outages will be excluded while computing the availability				

B. <u>Incorporation of New Tariff Structures in SBD and Software modifications</u>

The vendor will be notified about changes to tariff structure and modifications to software, which the vendor shall incorporate in the SBD application and release a new version of SBD application in a timely manner.

Sl. No.	**Criteria**	**Metric**	**Penalty**	**Measurement**
1	Baseline	14 days	Nil	Refer remarks
2	Lower performance	15 - 21 days	1% of MTC	
3	Breach	>	2% of	

		21 days	MTC and BESCOM reserves the right to invoke the termination clause	
Remarks ➢ MTC = Monthly Transaction charges due to the vendor for provision of the spot billing service specified in this RFP ➢ On receipt of requirements, the vendor shall implement the requirement and demonstrate the functionality for final clearance by BESCOM within 14 days of the email notification date.				

C. Non-generation of Bills due to SBD related problems

The vendor will be notified about SBD related problem over email or letter and same will be replaced by the spare SBD provided at division office, Vendor shall rectify the faulty SBD and revert back by email or letter. The delay in resolving the SBD issues as per the email or letter communication following penalty will be levied.

Sl. No.	Criteria	Metric	Penalty	Measurement
1	Baseline	3 working days	Nil	Refer remarks
2	Lower performance	4-7 working days	0.5% of MTC	
3	Breach	> 7 working days	1% of MTC	
Remarks ➢ MTC = Monthly Transaction charges due to				

the vendor pertaining to the corresponding SBD.

- On receipt of complaint, the vendor shall rectify the problem and deliver the SBD to BESCOM within 7 days of the email notification date.
- **No remuneration shall be paid towards non-generation of bills due to reasons attributable to service provider.**

(A) In addition to this, BESCOM reserves the right to purchase stationery in case of non-availability/supply by the service provider and deduct the same amount from the Monthly Transaction Charges (MTC) due to the vendor.

The Service Provider will be notified about SBD related problem over phone, email, in person or letter, Vendor shall rectify the issue and revert back by email or letter. Date and time of email shall reckoned for calculation of penalty.

D. Non-rectification of software problems

Bugs / errors in software as reported by BESCOM officials shall be resolved in a timely manner as given below:

Bugs in Software – Critical Issues				
Sl. No.	**Criteria**	**Metric**	**Penalty**	**Measurement**
1	Baseline	1-Day	Nil	Refer remarks
2	Lower performance	2 - 3days	2% of MTC	
3	Breach	> 3 days	4% of MTC	

Remarks

- MTC = Monthly Transaction charges due to the vendor for provision of the spot billing service specified in this RFP.
- Critical issues in software will include issues

wherein the application is running but users across more than 1 sub-division are unable to use the software.

- BESCOM officials will detail the issue and notify the vendor vide email from which will be the start time will be computed. The vendor shall confirm resolution of the issue by email. The difference between the time at which issue was reported by email and the time at which issue resolution will confirmed by email will be computed to arrive at the time taken for resolution of critical issues.
- There shall be no overlap between the issues reported under Non-generation of bills due to SBD problems, non-critical issues and issues reported under non-rectification of software problems.

E. Issue of Erroneous bill or Non updation of Billing logic problems

If any erroneous bills are reported or if the updation of billing is not done intime, resulting in erroneous bills , errors reported by BESCOM officials shall be resolved in a timely manner as given below:

Bugs in Software – Critical Issues				
Sl. No.	**Criteria**	**Metric**	**Penalty**	**Measurement**
1	Baseline	1-Day	Nil	Refer remarks
2	Lower performance	2 - 3days	2% of MTC	
3	Breach	> 3 days	4% of MTC	

Remarks

- MTC = Monthly Transaction charges due to the vendor for provision of the spot billing service specified in this RFP.
- Critical issues in software will include issues wherein the application is running but users across

more than 1 sub-division are unable to use the software.

- BESCOM officials will detail the issue and notify the vendor vide email from which will be the start time will be computed. The vendor shall confirm resolution of the issue by email. The difference between the time at which issue was reported by email and the time at which issue resolution will confirmed by email will be computed to arrive at the time taken for resolution of critical issues.
- There shall be no overlap between the issues reported under Non-generation of bills due to SBD problems, non-critical issues and issues reported under non-rectification of software problems.

F. Non-availability of support personnel

Penalty for the non-availability of support personnel is Rs.1000/day/person and same will be applicable for the partial day of absence. It is the responsibility of the SP to regulate the statutory requirements with respect to engagement of man power like leave, salary etc. But has to ensure availability of manpower on all working days of the month which includes posting substitutes when the regular goes on leave/ absence.

G. Non-availability of Stationery

SDO can purchase outside and deduct from the monthly remuneration bills.

H. Non-deliverables viz., copy of data base, back up, MIS reports etc., to SDO & also to Corporate Office

Contract will be terminated duly after giving 15-days' notice with BESCOM reserving liberty to claim all consequential damages.

I. Misappropriation

BESCOM reserves the right to recover the loss sustained along with 10% (of the loss amount as) penalty in case of misappropriation by the service provider or his staff with or without colliding with BESCOM staff or due to security lapses or any lacunae in the system. This is without prejudice to the recourses BESCOM may take for such misappropriation/losses. The capping of 10% of MTC does not apply to penalty levied on account of misappropriation.

J. <u>Penalty Capping</u>

Penalty from Service Level Agreements (SLA) listed above except- C is capped at 10% of the Monthly Transaction Charges (MTC) due to the vendor.
<u>No remuneration shall be paid towards non-generation of bills due to reasons attributable to service provider.</u>

GTC 8.2 SP to provide complaint resolving mechanism with escalation matrix to the utility. Provision shall be available to the Sub-Divisional Officer to lodge Complaint and to view the resolution status such as Type of compliant, Date of Compliant lodged, Docket No., Date of Rectification, etc. Also provision shall be made to get a monthly report in the system and same shall be submitted along with monthly invoices.

GTC 8.3 Any LD arising out of the afore mentioned clauses shall be recovered from any of the pending bills/ Bank Guarantees of the vendor lying with BESCOM/recovery suit.

GTC 8.4 BESCOM is not responsible for any of the fraudulent transactions.

GTC 9.0 Risk Purchase & Termination of Contract:

GTC 9.1 In case the supplier commits any breach of SLA and fails to carry out the work satisfactorily in the contract period or in case the Materials/ equipment/ software/ Services supplied are found not in accordance with prescribed specifications and/or approved sample or if

found to have furnished misleading or false representations in statements and attachments submitted as proof of the qualifying requirement at a later date, the Company shall exercise its discretionary powers on any or all the following:

1. To recover from the successful bidder, as agreed, liquidated damages or by way of penalty or loss incurred by BESCOM, the amount as per penalty clause above ; and
2. To avail the services elsewhere, after giving due notice to the successful bidder on account and at the risk of the successful bidder such materials/services not so delivered or others of a similar description without cancelling the contract. In respect of the consignment not yet due for delivery, the successful bidder shall not be entitled to any saving on such purchase made against default.
3. To cancel the Work award.
4. To forfeit the performance guarantee.
5. To black list or not to consider future offers for a specified period.

GTC 9.2 The decision of the company shall be final as regards the acceptability or otherwise of materials/ equipment/ Services supplied.

GTC 10.0 Work Plan:

Key activities in implementation of the project are listed below:

1 Issue of Letter of Intent (LoI) = T
2 Basic functionality specified in this tender to be implemented in T+2 months
3 Pilot acceptance of the system will be performed as per conditions specified in SW-13. Detailed Work Order will be issued subsequent to the pilot Acceptance.
4 Detailed functionality specified in this tender to be implemented in T+ 4 months
5 Phased roll out of the service to all Sub-Divisions in BESCOM

6 User Acceptance Testing as per conditions specified in SW-13.
7 Maintenance of the system for 2+1 years subsequent to User Acceptance

Annexure-I

BID FORM

Ref No:
Dated:

From,
……
……

To,
The General Manager (Customer Relations),
Corporate Office, BESCOM,
K. R. Circle, Bengaluru – 560 001.

Dear Sirs,

Having Examined and understood the Terms and conditions of the Bid documents and the Scope of Work in the Bidding documents issued under Enquiry No. **BESCOM/ GM (CR)/ DGM(HT)/BC-48/ 2023-24/01 dated 16.05.2023** for the "Supply, Integration, Warranty & On-site Maintenance of Android OS based Integrated Spot Billing Device (SBD), Connectivity, software, Thermal paper and allied services for Spot Billing in RAPDRP/IPDS area" with the following brief scope: including any knowledge, addendum / amendments (if any), the receipt of which is hereby duly acknowledged, we the undersigned, hereby submit the fully completed Bid Documents, which includes the EMD, Qualifying requirements, Technical and Commercial details and Price Bids, for the said Materials.

We hereby agree to supply the materials in conformity with the technical specification enumerated in the Bidding Documents, for the sum stated and quoted in the Bid or such other sums as may be ascertained in accordance terms of the tender. We undertake, if our Bid is accepted, to execute the contract with in the stipulated time with the Schedule of Prices attached herewith and made Bid.

We note that the prices offered are (as per the Bid stipulation) FIRM throughout the period of contract

including extended period if any as per the commercial terms and conditions. We agree to keep this Bid valid for a period of 180 days plus extended period if any from the date fixed for Bid opening and it shall remain binding upon us.

Until a formal contract is prepared & executed, this Bid together with your written acceptance thereof in your notification of Award shall constitute a binding contract between us.

Dated this day of……. 2023

(Signature)

Name in Block Letters

(In the capacity of)

Duly authorized to sign Bid for and on behalf of

Witness:

Annexure-II

No deviation Certificate

DECLARATION BY THE BIDDER

With reference to the bid Enquiry No. : **BESCOM/ GM (CR)/ DGM(HT)/BC-48/ 2023-24/01 dated 16.05.2023** for the "Supply, Integration, Warranty & On-site Maintenance of Android OS based Integrated Spot Billing Device (SBD), Connectivity, software, Thermal paper and allied services for Spot Billing in RAPDRP/IPDS area", we confirm that we have read the both the technical and commercial requirements and all the clauses are acceptable to us and we have not taken any deviations whatsoever.

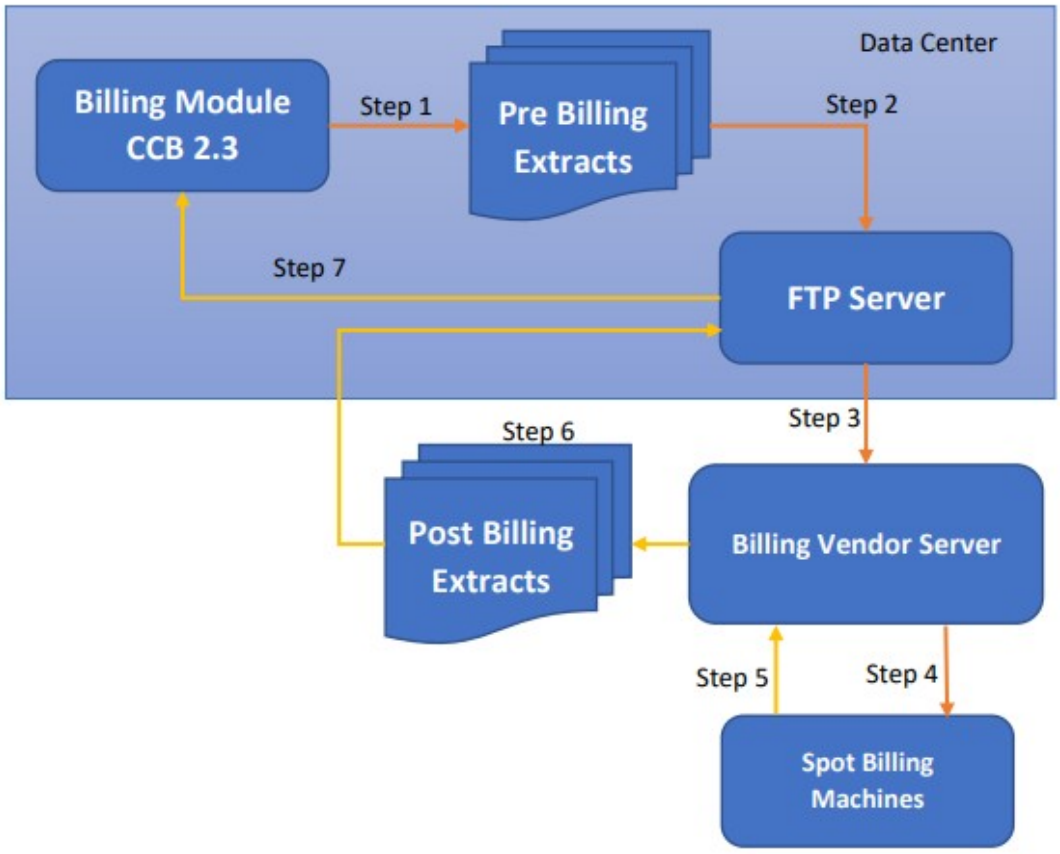
Any deviations mentioned anywhere in the document shall be ignored.

Name & Designation:		
Address of the Bidder with Seal		
Place:		
Date:		

Annexure –III (A) – In RAPDRP Area till successful implementation of IPDS IT Phase - II

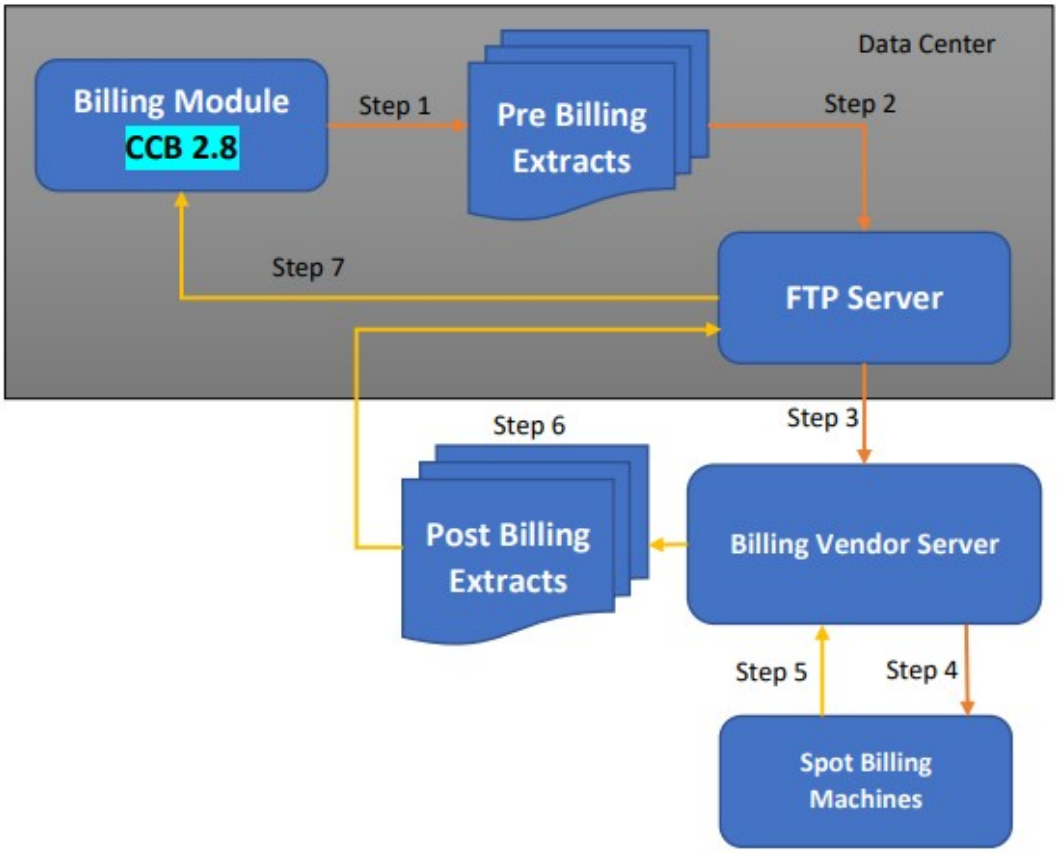
High level process flow

Spot Billing Data Flow diagram of Existing RAPDRP system (CCB 2.3):



Spot Billing Data Flow diagram of Phase 1 RAPDRP system (CCB 2.8):

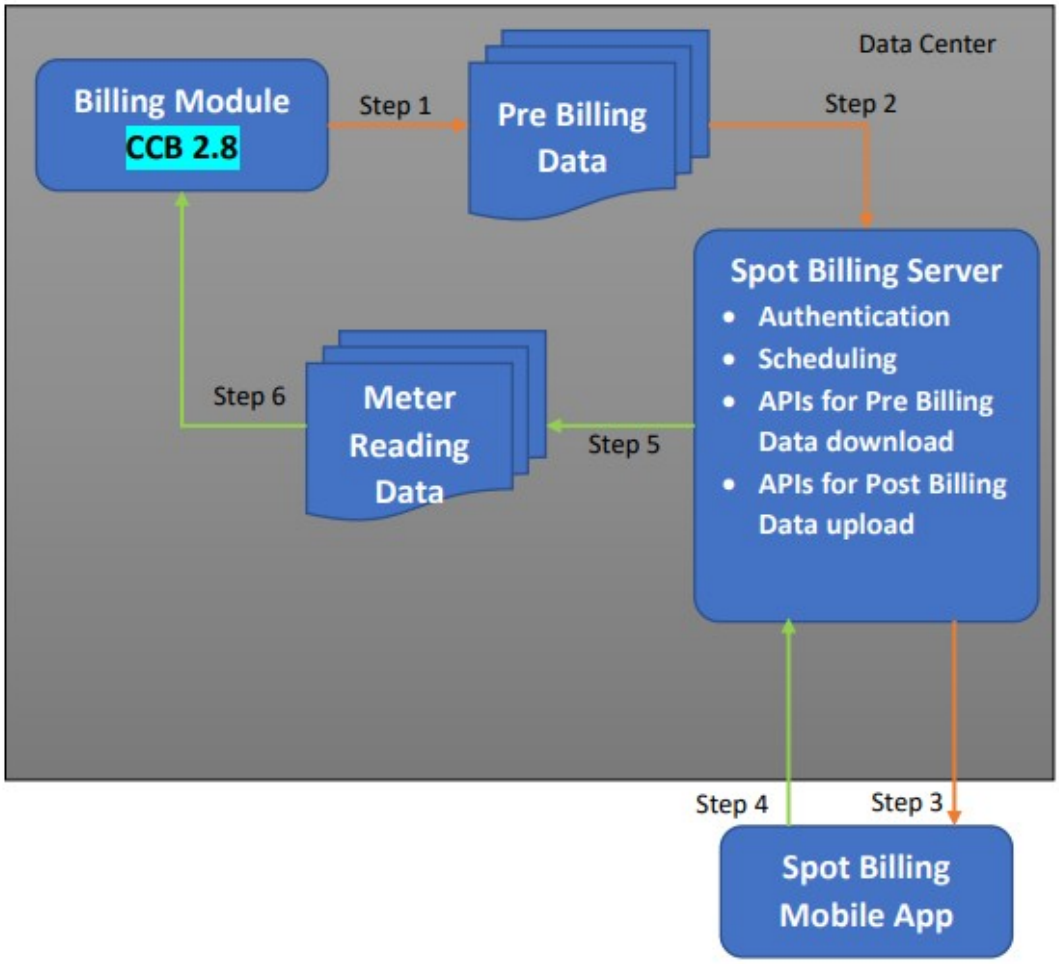
- Process Same as existing
- CCB 2.8 will handle the billing process instead of CCB 2.3



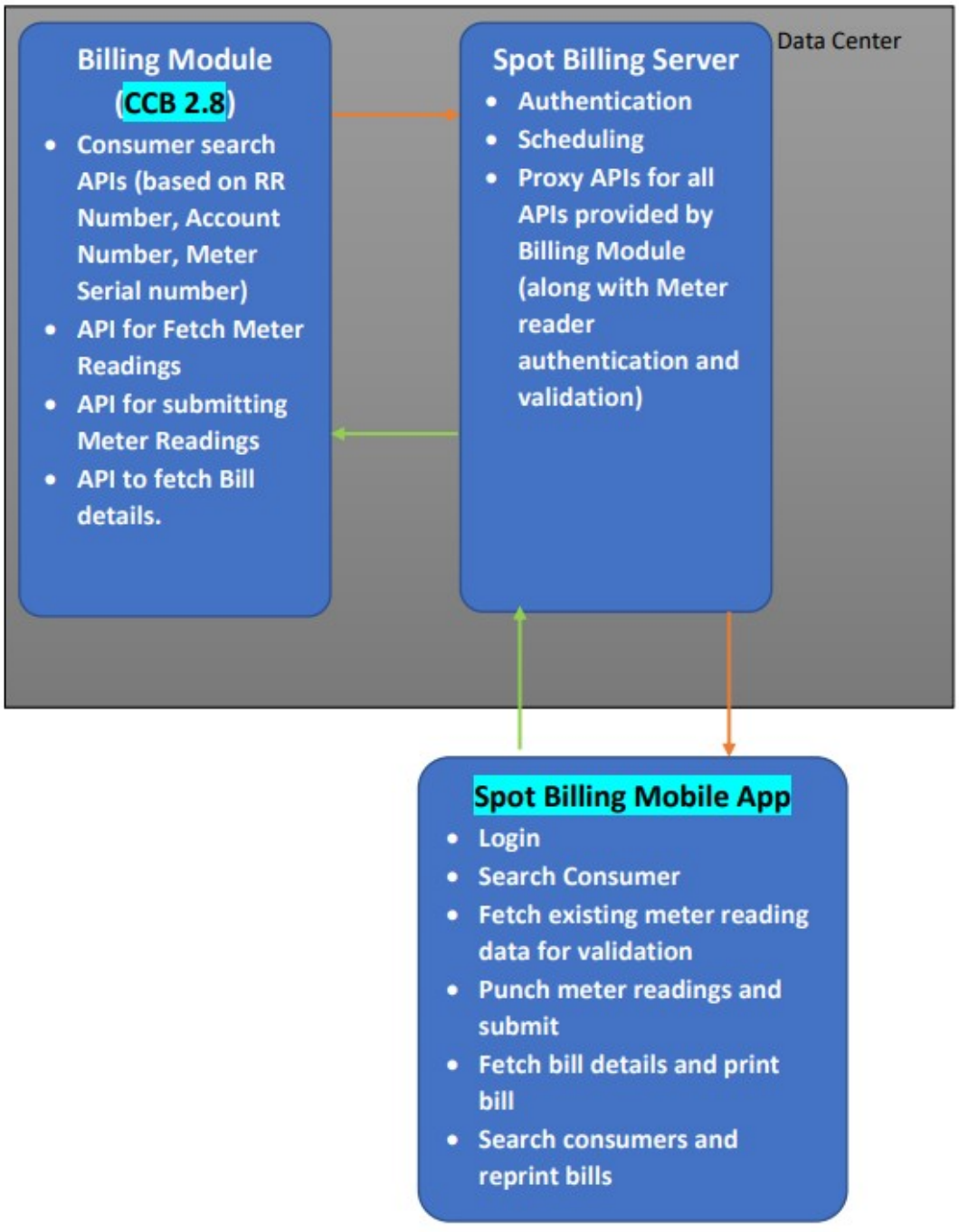
Annexure –III (B) – In RAPDRP and IPDS Areas after successful implementation of IPDS IT Phase – II project

High level process flow

Spot Billing Data Flow diagram of Phase 2 IPDS system (CCB 2.8) Offline Billing Process:

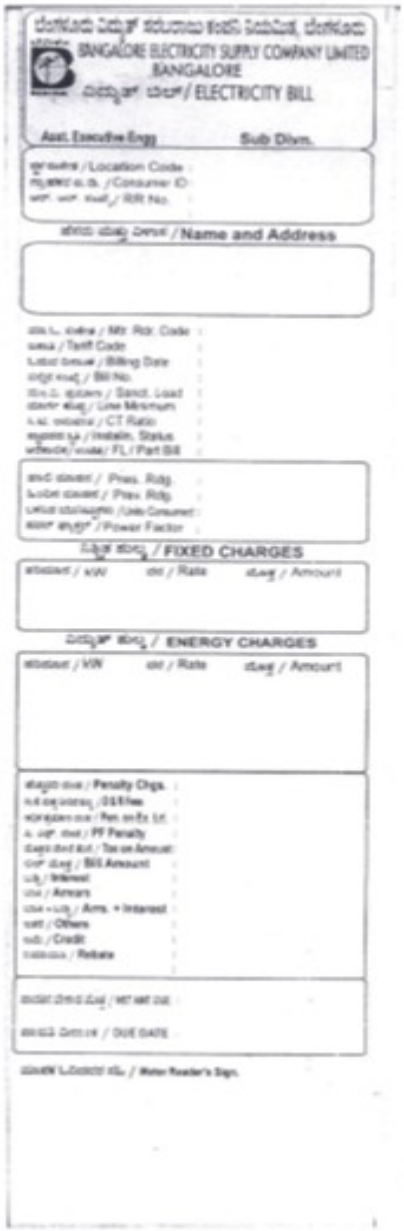


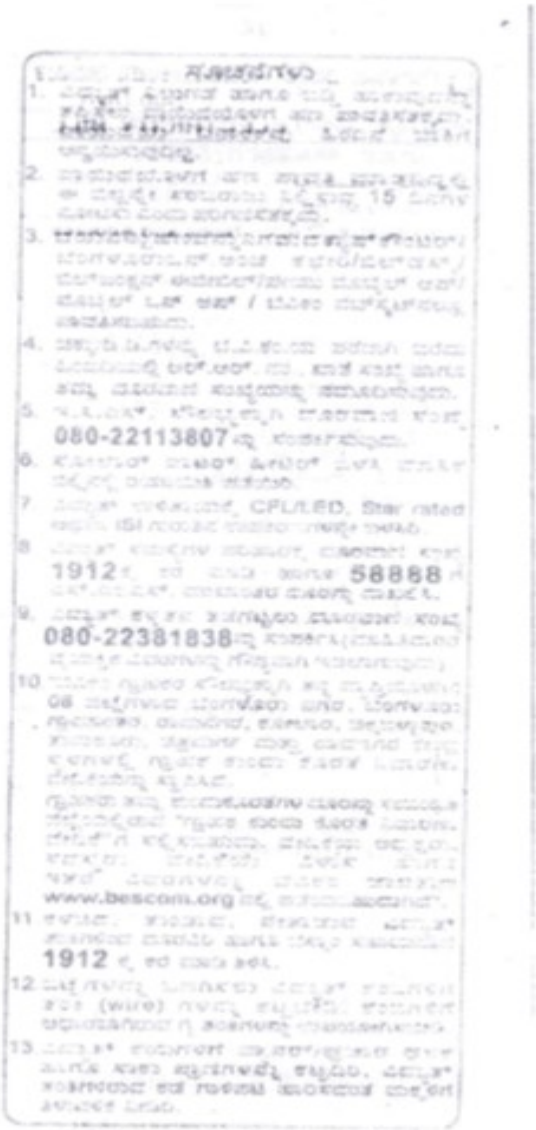
Spot Billing Data Flow diagram of Phase 2 IPDS system (CCB 2.8) Online Billing Process:


Billing Module
(CCB 2.8)
Consumer search APIs (based on RR Number, Account Number, Meter Serial number)
API for Fetch Meter Readings
API for submitting Meter Readings
API to fetch Bill details.
Spot Billing Server
Authentication
Scheduling
Proxy APIs for all APIs provided by Billing Module (along with Meter reader authentication and validation)
Data Center
Spot Billing Mobile App
Login
Search Consumer
Fetch existing meter reading data for validation
Punch meter readings and submit
Fetch bill details and print bill
Search consumers and reprint bills

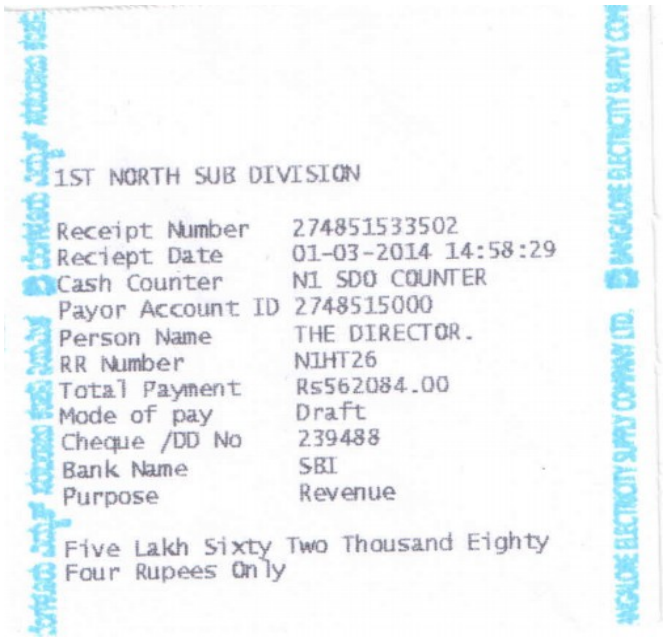
Annexure-IV

A. Spot bill format: Spot bill format should be in Ten inches size length and 76 to 78mm width with high quality thermal paper.


BANGALORE ELECTRICITY SUPPLY COMPANY LIMITED
BANGALORE
ELECTRICITY BILL
Asst. Executive Engg
Sub Divn.
/Location Code
/Consumer ID
/Name and Address
/ Mtr. Rdr. Code
/Tariff Code
/Billing Date
/Bill No.
/Sanct. Load
/Line Minimum
/CT Ratio
/Installn. Status
/ FL / Part Bill
/ Pres. Rdg.
/ Prev. Rdg.
/Units Consumed
/ Power Factor
/ FIXED CHARGES
/ Rate
/ Amount
/ ENERGY CHARGES
/ Rate
/ Amount
/ Penalty Chgs.
/ FF Penalty
/ Bill Amount
/ Interest
/ Arrears
/ Arrs. + Interest
/ Others
/ Credit
/ Rebate
/ DUE DATE
/ Meter Reader's Sign.


080-22113807
1912
58888
080-22381838
www.bescom.org
1912

B. Payment Receipt Format:



1ST NORTH SUB DIVISION

Receipt Number	274851533502
Reciept Date	01-03-2014 14:58:29
Cash Counter	N1 SDO COUNTER
Payor Account ID	2748515000
Person Name	THE DIRECTOR.
RR Number	NIHT26
Total Payment	Rs562084.00
Mode of pay	Draft
Cheque /DD No	239488
Bank Name	SBI
Purpose	Revenue

Five Lakh Sixty Two Thousand Eighty Four Rupees Only

ANNEXURE-V

Specification of Hardware: The below mentioned hardware specification is minimum.

A) DESKTOP PCs:

Sl. No.	Parameter	Specification as under or higher
I	**Mother Board**	
1	Chipset Series	Intel H Series
2	Chipset Number	Intel H 410
3	Expansion Slots (PCIe x 1) (Number)	0
4	Expansion Slots (PCIe x 4) (Number)	0
5	Expansion Slots (PCIe x 16) (Number)	1
6	Expansion Slots (PCI) (Number)	0
7	Expansion Slots (M Dot 2)	1
II	**Processor**	
1	Processor Make	Intel
2	Processor Generation	10
3	Number of Cores per Processor	6
4	Processor Base Frequency (GHz)	2.9
5	Processor Description	Intel Core i5
6	Processor Number	Intel Core i5 10400
7	Out of Band Management	NA
8	Cache (MB)	12
III	**Graphics**	
1	Graphics Type	Integrated
2	Graphic Card Description	NA
3	Size of Memory in Case of Dedicated Graphic Card (GB)	0

4	Size of VRAM in case of Integrated Graphics (MB)	0
IV	**Operating System**	
1	Operating System (Factory Pre-Loaded)	Windows 10 Professional
2	Recovery Image Media	NA
3	OS Certification	Windows
V	**Memory**	
1	Type of RAM	DDR4
2	RAM Size (GB)	8
3	RAM Speed (MHz)	2666
4	Total Numbers of DIMM Slots Available	2
5	Number of DIMM Slots populated	1
6	RAM Expandability up to(using spare DIMM Slots in GB)	32
VI	**Storage**	
1	Total Number of Internal Bays available	3
2	Number of 2 point 5 inches internal Bays	1
3	Number of 3 point 5 inches Internal Bays	2
4	Number of 2 point 5 Inches Internal Bays Populated	0
5	Number of 3 point 5 Inches Internal Bays Populated	1
6	Type of Drives used to populate the Internal Bays	HDD
7	Number of Internal Bays populated with HDD	1
8	Capacity of each HDD (GB)	1000 @7200 rpm
9	Total HDD Capacity (GB)	1000

10	Number of Internal Bays populated with SSD	0
11	Capacity of each SSD (GB)	0
12	Total SSD Capacity (GB)	0
13	Number of Internal Bays populated with SSHD	0
14	Capacity of each SSHD (GB)	NA
15	Total SSHD Capacity in addition to 8 GB Flash (GB)	0
16	Number of Internal Bays populated with SSED	0
17	Capacity of each SSED (GB)	0
18	Total SSED Capacity (GB)	0
19	Optane Memory (GB)	0
VII	**Cabinet**	
1	Cabinet Form Factor	Tower (13.1 to 26 Liters)
2	Cabinet Volume (Litres)	26
3	External Bays (Number)	1
4	Optical Drive	N/A
5	Internal Speaker	No
6	Audio-in	Yes
7	Audio-out	Yes
8	Headphone out	Yes
9	Microphone-in	Yes
VII I	**Connectivity**	
1	Wireless Connectivity	Yes
2	If Yes, Type of Wireless Connectivity	Wi-Fi 802.11ac
3	Number of Ethernet Ports	1
4	Type of Ethernet Ports	10/100/1000 on board Integrated

		Gigabit Port
5	Bluetooth Connectivity	Yes
6	If Yes, Version of Bluetooth Available	4.2
IX	**Ports**	
1	Number of USB Version 2 Point 0 Ports	4
2	Number of USB Version 3 point 0 / 3	4
3	point 1, Gen 1 Ports	
4	Number of USB Version 3 point 1, Gen 2 Ports	0
5	Number of USB Type C Ports	0
6	Number of Serial Ports	1
7	Number of Parallel Ports	0
8	Number of VGA Ports	1
9	Number of HDMI Ports	1
10	Number of DP Ports	0
X	**Monitor**	
1	Model of the Monitor	NA
2	Monitor Technology	TN
3	LED Backlit Monitor Size (INCHES)	21.5
4	Monitor Resolution (PIXELS)	1920x1080
5	TCO Certification for Monitor	NA
6	Number of VGA Ports in the Monitor	1
7	Number of HDMI Ports in the Monitor	1
8	Number of Display Ports in the Monitor	0
9	Availability of Webcam integrated with monitor	No
11	If Yes, Resolution of Webcam	NA
12	Availability of Speakers	Yes

	integrated with Monitor	
13	If Yes, Number of Speakers available	2
XI	**Power**	
1	Power Supply Capacity (Watt)	250
2	Minimum Power Efficiency Range (%)	85 - 89
XII	**Certification**	
1	ROHS Compliance	Yes
2	BEE / Energy Star for the given Model	Yes
XIII	**Input Devices**	
1	Mouse Connectivity	Wired
2	Type of Mouse	Optical Scroll
3	Keyboard Connectivity	Wired
4	Type of Keyboard	Standard with Rupee Symbol
XIV	**Operating Conditions**	
1	Minimum Operating Temperature	10 degree Celsius
2	Maximum Operating Temperature	40 degree Celsius
3	Minimum Operating Humidity (%RH)	10
4	Maximum Operating Humidity (%RH)	90
XV	**Warranty**	
1	On Site OEM Warranty (Year)	3

B) UPS 2KVA – 2HOURS BACK UP

Sl. No.	Parameter	Specification as under or higher

I	**Generic**	
1	Rating in KVA	2.0 KVA
2	Switching Technology	IGBT-PWM
3	Input Voltage	AC Single phase 160V - 260V 50Hz
4	Output Voltage	AC Single phase 230V +/- 1% 50 Hz
5	Warranty for UPS (Years)	2
II	**Battery/Backup Bank**	
1	Battery/Backup Bank Provided with Online UPS (Hint: In case the UPS is supplied with battery, seller shall ensure compliance to the GST Rates as per recommendations made in the 45th Meeting of GST council dated 17th Sep 2021)	With Battery
2	Type of Battery (hint: NA in case Battery not provided)	SMF-VRLA conforming to JISC:8702(Pt.I,II&III), Stationary Lead Acid Batteries (with tubular positive plates) in monobloc container conforming to IS:13369:1992 latest
3	Backup time (Minutes) (hint: NA in case battery not provided)	120 Minutes
4	Battery Make	EXIDE / AMARARAJA
5	Battery Model Number	EP100-12 / 12AL100N
6	Battery capacity (Ah)	100
7	Weight of the Battery (kg)	195

8	Number of Batteries	6
9	Minimum Guaranteed VAH	1600 X Per KVA X Per hour of backup time
10	Warranty for battery (Years) by Battery Manufacturer/Brand hint: NA in case battery not provided	2
11	Accessories with Battery	NA
III	**Installation And Commissioning Or Service**	
1	Installation and Commissioning (Covered in the Scope of Supply)	Provided
3	After sales service (Turn Around Time)	Within 48 hours
4	Preventive Maintenance (Hint: Mention Timeline if provided, NA if not provided)	Quarterly
5	Other Services provided	PAN India service support on 24 x 7 basis,Availability of spares in close proximity (Spares should be easily available close to the site)
IV	**Performance / Functional**	
1	Inbuilt isolation transformer	With
2	Overall Efficiency (%)	>/=80% & <90% with Inbuilt isolation transformer
3	Power Factor Load Supported	0.8 or better
4	Overload limit	50% Overload for minimum 3 seconds

5	Total Harmonic Distortion(THD) (%)	3% Maximum @ 100% Linear Load
6	Other Functional Features	Crest factor on full non-linear load is not less than 3:1,Noise level (1 meter distance from UPS) should be less than 70dB,Input power factor at full output load leading to unity with active power factor correction (APFC) >/=0.92,Transient response time (for 100% load change, output must remain within +/-1% and recovery) as <20 milliseconds, Battery recharge time (after complete discharge to 90% charge) and charge rating: Battery recharge time to 90% charge after 100% DoD : 8 to 10 Hours, Maximum overshoot and Under shoot of output rated voltage (in percentage) (4%),Voltage Regulation from no load to full load (%) (< / = 2%),UPS input power factor better than 0.95 (at rated voltage)
V	**Accessories**	
1	Accessories	Rack for Batteries
VI	**Salient Features**	
1	Protection	Protection for under voltage at battery terminal, Protection of Over voltage, Short Circuit

		& over load at UPS output terminal, Over temperature protection
2	Metering	Input Voltage, Output Voltage, Input Frequency, Output Frequency
3	Alarms and Indications	Indicator for Mains presence, Indicator for Battery charging and discharging, Indicator for Output Over Load with Audible Alarm, Indicator for Low Battery Voltage with Audible Alarm, Alarm for Over temperature, Alarm for Low Battery
4	Additional Features	Pure Sinewave AC Output
5	Provide URL of the catalogue	www.numericups.com
VII	**Design / Construction**	
1	Type of Design / Construction	Floor Standing
2	Form factor of UPS	NA (for Floor Standing)
3	Enclosure (mm)	1.0 mm Minimum Thickness of M.S. Sheet duly powder coated
4	Degree of Protection	IP20
5	DC Bus Voltage (In Volts)	72
6	Other Constructional Features	Battery Fuse, Inverter reset push button, Static by pass facility, UPS shall be free from workmanship defects, sharp edges, nicks, scratches, burst, etc. All fasteners shall be fixed properly. The equipment shall be complete with all parts

		and all parts shall be functional
VIII	**Operating Conditions**	
1	Minimum Operating Temperature	0 degree Celsius
2	Maximum Operating Temperature	40 degree Celsius
3	Relative Humidity Non Condensing at 40 deg C	90 percent
IX	**Buyer Specific Requirement**	
1	Environmental Test Report Requirements	NA
2	Battery Test Report	NA
3	Intended Applications	Critical Infrastructure, Network IT Equipment, Medical Equipment, Support for Data Centers, Network operating centers, Security operation centers, State and District centers, Command and Control center etc., across the Country to provide impetus to the e-Governance services e.g. Public food distribution, e Way bill, Counseling, e-Office, IVFRT etc., services under Digital India Program
4	Other Requirements	ROHS compliance, KW rating shall be 0.8 time of KVA rating
X	**Reports And Certification**	
1	Type of lab which carried out Test of Complete Product to	Govt Lab

	prove the conformity of product as per specification	
2	Agree to provide all relevant documents Test Reports/supporting document /reports etc to the buyer at the time of bidding or on demand	Yes
3	As per Meity (Government of India) guidelines UPS shall have valid BIS CRS certifications as applicable	Yes (For UPS rating upto 10KVA)

C) Technical Specifications of Android OS Based integrated Spot Billing Devices (SBD):

Sl. No.	Parameter	Specifications as under or Higher
1	Display	Form factor-Bar, Screen type-Touch screen, Screen size-min of 4 inches, resolution-min of 480X 584, No. of colours-min of 16M
2	Processor	Quad core, cumulative speed at min of 4 GHz or above
3	Memory	Internal memory of min 8 GB, min 6 GB RAM with extendable up to min of 32 GB
4	Camera Features	At least 8.0MP Rear camera: 2.0 MP front camera: Auto focus; with LED light.
5	General Features	Android OS 12 or higher version (all up to date security patches) with Bluetooth 5.2 or higher features, messaging, GPS, USB connector, OCR, NFC permanent metallic sticker etc.
6	Data	3G/4G or higher, Wifi 802.11 b/g/n
7	Sound	Media player for audio and video
8	Battery	Type- Li-Ion/ Li-Polymer, Capacity-Min of 6000mAH, supports dismounting, stand by time 72 hours, operating time 12 hours, generation of Min 500 bills per charge
9	Miscellaneous features	All other features to be disabled and only the required app to be enabled. MIL-STD-810G compliant against shock & temperature and also IP65/IP68 compliant.
10	Fingerprint sensor/ Biometric	Sensor-FRC 101 IFI, processor FPC 202 OQ(64 pin QFN9*9mm)
11	GPS	Built-in GPS, support A-GPS
12	IOT Functions	**1D Barcode:** Code 128, EAN-13, EAN-8, Code39,UPC-A,UPC-E, Codabar ISBN/ISSN, Code93,UCC/EAN-128,

		GS1 Databar, HIBC or latest
		2D Bar code: Built -In QR, PDF417 Code 128, EAN-13, EAN-8, Code39, UPC-A, UPC-E, Code bar, Interleaved 2 of 5, ISBN/ ISSN, Code93, UCC/EAN-128 or latest
		RFID/NFC Permanent metallic Sticker:
		Fully support NFC, 13.56MHz (ISO14443A/B,15693 Protocol), Reading distance 2~ 5cm. Support UHF RFID (EPC C1/G2, 18000- 6 protocol), reading and writing tags (optional) 2.4GHz active RFID module, reading distance can reach 30~ 50m (optional)
13	Printer	3 inch integrated thermal printer with minimum 10 meter paper roll load capacity. Velocity: 15mm/s
14	Software	SBD should have a customizable utility billing software
The device should be a single piece system, with the printer integrated at the PCB/board level **The SBD should also support following features / functionality:** Real Time (on-line) spot billing as per KERC tariff order and relevant data exchange. Real Time spot collection by cash /DD /cheque /card payment modes and relevant exchange. Auto meter reading download from optical port / Bluetooth device / RF&IR / OCR. Display and generation of disconnection list, capturing disconnection details and auto upload. Display and generation reconnection list, Capturing reconnection details & auto upload. Reports (Summary / detail) SBD software should be customizable for the utility billing application (including Spot collection, disconnection and reconnection) Capturing DTR reading and DTR wise Energy Auditing.		

D) RFID/NFC permanent metallic sticker Specification: Deleted

E) Laser Printer (B/W):

Sl. No.	Parameter	Specification as under or higher
1	Cartridge Technology	Separate toner and drum
2	Printing Technology	Laser
3	Type of Printing	Mono
4	Paper Size	A4
5	Print Speed per minute as per ISO/IEC 24734 in (A4) Size - Mono	20
6	Print Speed per minute as per ISO/IEC 24734 in (A4) - Color	0
7	Resolution (Dpi)	600x600
8	Memory (MB)	32
9	Hard Disk Capacity (GB)	0
10	Processor Speed	400 MHz
11	Duplexing Feature	No
12	Duplex Print Speed (IPM)	0
13	Network Connectivity	No
14	Network Interface, if available	NA
15	Wireless Connectivity	No
16	If Yes, Type of Wireless Connectivity	NA
17	USB Port	Yes
18	Number of Main Paper Trays	1
19	Each Main Paper Tray Capacity	150
20	Bypass Tray Facility	Yes
21	If Yes, Bypass Tray Capacity	0

22	Yield of the cartridge/Ink Tank/Ink Pack supplied with Machine as per ISO/IEC: 19798/2007(E) for Cyan colour (Number of prints)	0
23	Yield of the cartridge/Ink Tank/Ink Pack supplied with Machine as per ISO/IEC: 19798/2007(E) for Yellow colour (Number of prints)	0
24	Yield of the cartridge/Ink Tank/Ink Pack supplied with Machine as per ISO/IEC: 19798/2007(E) for Magenta colour (Number of prints)	0
25	Yield of the cartridge/Ink Tank/Ink Pack supplied with Machine as per ISO/IEC: 19752/2004(E) for Black (Number of prints)	5000
26	Life of Drum in terms of number of Prints in case of Separate Drum and Toner cartridge technology -Cyan	0
27	Life of Drum in terms of number of Prints in case of Separate Drum and Toner cartridge technology - Yellow	0
28	Life of Drum in terms of number of Prints in case of Separate Drum and Toner cartridge technology - Magenta	0

29	Life of Drum in terms of number of Prints in case of Separate Drum and Toner cartridge technology - Black	120000
30	Duty Cycle (No of Prints/month)	20000
31	Minimum Operating Temperature (Degree C)	10
32	Maximum Operating Temperature (Degree C)	30
33	Minimum Operating Humidity (%RH)	20
34	Maximum Operating Humidity (% RH)	80
35	BIS Registration under CRS of Meity	Yes
36	BIS Registration no	R-41002970
37	Other Certifications Available	RoHS,UL,CE
38	Dimensions(In mm x mm x mm)	358 x 262 x 241
39	Weight (In kg)	6.3
40	On site OEM warranty (Years)	3

F) THERMAL PAPER FOR SPOT BILLING:

	Width (mm)	76mm
	Diameter(mm)	34mm
	Basic weight (GSM)	70 GSM (Min)
	Core diameter Outer/Inner(mm)	Outer 16mm/ Inner14mm
	Length of each roll (Meters)	10 Meters
	Length of each bill (Meters)/ No. of bills per roll	0.25 Mtrs /10 inch
	Printing font size(Bill Portion)	14
	Printing font size(Instructions portion)	14
	Caliper (Um)	61

	Brightness (%)	83%
	Smoothness	550
	Tensile strength	MD125
	Tear strength	MD 200
	Static Imaging(color) test	Max 0.2
	Dynamic Imaging(color) test	Min 1.10
	Thermal Resistance (Blank/Imaged)	Max 0.2 Min 1.0
	Moisture Resistance (Blank/Imaged)	Max 0.2 Min 1.0
	Light Resistance (Blank/Imaged)	Max 0.2 Min 1.0
	Printing method	UV method
	Printing ink	RNC type by F&K TOKA or any similar ink
	Impression	99.90%
	Dynamics color response 0.32 mj/ dot: min1.10	
	Static color response(70 deg C) :Max 0.2	
	Tearing sensors at the end of each bill	
	Double preprinting required	

Note: BESCOM reserves right to vary the length & contents, include Advertisements in the form Text or pictures or both Text and pictures, either in black and white or in colour without any additional cost implication to BESCOM.

Annexure VI

Existing SDO wise list of LT Active Installations

Sl. No.	Sub Division	Active Installations (As on 16-01-2023)
1	S20-AGARA	103301
2	S12-JP NAGAR	117782
3	S1-JAYANAGAR	81329
4	KUNIGAL	15181
5	S2-WILSON GARDEN	78145
6	MULABAGILU	24125
7	N3-BASAVESHWARANAGARA	93950
8	N6-SUNKUTKATTE	86974
9	S14-JP NAGARA 2ND PHASE	86844
10	S8-BOMMANAHALLY	105924
11	N4-PEENYA	103230
12	S10-BANNERGHATTA	84219
13	S6-JP NAGAR	105684
14	K2-HEROHALLI	120520
15	S19-VIJAY BANK LAYOUT	89102
16	C5-KAVALBAIRASANDRA	109634
17	S9-BANASHANKARI	46626
18	N8-NAGARABHAVI	86326
19	S18-CHIKKA KALLASANDRA	77072
20	S16-MADIWALA	80397
21	KYATASANDRA	16457
22	S17-HAL	104503
23	E5-COOKE TOWN	81170
24	S11-HSR LAYOUT	116608
25	E9-NAGAWARA	163381
26	W4-AR CIRCLE	50714
27	C7-YALAHANKA	146400
28	C8-SAHAKARANAGARA	81030
29	SIRA URBAN	24656
30	DODDABALLAPURA	55150
31	C2-MALLESHWARAM	67631
32	S4-KORAMANGALA	50404
33	C4-TATA NAGAR	112471
34	TUMAKUR CITY - 1	66019
35	S13-ELECTRONIC CITY	155942
36	E10-PAI LAYOUT	96546
37	CHINTHAMANI URBAN	32393

38	C9-VIDYARANYA PURA	108005
39	E4-WHITEFIELD	145523
40	N9-SOLADEVANAHALLI	103519
41	K4-RR LAYOUT	124575
42	E7-DOORAVANINAGAR	90001
43	N5-PEENYA	128262
44	K3-KAGGALIPURA	34332
45	E2-SHIVAJI NAGAR	47895
46	E6-INDRANAGARA	73408
47	W1-AVALAHALLI	45825
48	K1-KENGERI	96026
49	N10-MUDALPALYA	60712
50	W7-RAJARAJESHWARINAGARA	51708
51	W3-MAGADI ROAD	122133
52	S15-KATHRIGUPPE	84501
53	E11-RAMMURTHY NAGAR	114423
54	N1-RAJAJI NAGAR	51273
55	E8-BANASWADI	149061
56	CHALLAKERE	21861
57	W2-CHAMRAJPET	50989
58	E12-MAHADEVPURA	92139
59	KOLAR URBAN	51807
60	N7-KURUBRUHALLI	112497
61	HOSAKOTE	34871
62	E3-MG ROAD	48612
63	W6-BYATARAYANAPURA	84923
64	N2-KHB LAYOUT	92132
65	TIPATUR	30621
66	C6-MATHIKERE	75669
67	S5-ISRO LAYOUT	91190
68	S3-AUSTIN TOWN	95998
69	CHIKKABALLAPUR URBAN	31759
70	KANAKAPUR URBAN	22816
71	CHANNAPATTANA URBAN	36810
72	CHITRADURGA CITY	52059
73	GOWRIBIDANURU	21877
74	SHIDLAGHATTA URBAN	19426
75	C3-JALAHALLI	94799
76	BANGARPET	21221
77	ANEKAL	26053
78	W8-N R COLONY	55297
79	S7-MURGESHPALYA	135251
80	KGF	44608
81	E1-PILLANNA GARDEN	95978
82	TUMAKUR CITY - 2	69915

83	W5-CUBBANPETE	48837
84	RAMANAGAR URBAN	44424
85	C1-RAJAJI NAGAR	86457
86	DAVANGERE CITY 2	64321
87	HARAPANAHALLI	16125
88	HARIHARA	32182
89	DAVANAGERE CITY-1	111261
90	HIRIYURU	24503
Grand Total		**6788310**

Sd/-

General Manager (CR)

BESCOM.

Cyber Security Guidelines:

1. The Contractor shall adhere to the regulations specified in CEA (Cyber Security in Power Sector) Regulation, 2021. The Contractor herein refers to OEM/Supplier/Vendor/Integrators, and is the Responsible Entity as defined in the regulations.

2. The bidder through a digitally signed statement by their Authorized representative shall disclose along with their bid, the existence and reasons for all known cyber security vulnerabilities or identified backdoor codes in effect till the submission of bid by the Contractor, in each of their Product offered for sale. Further known cyber security vulnerabilities or identified backdoor codes should be disclosed by the Contractor during post bid discussion if any held by the Employer. The Employer reserves the right to seek compensatory security controls for mitigation of the disclosed vulnerability or identical backdoor codes along with the letter of Acceptance of the Supply Order/Work Award Order or to reject the bid without any notice to the Contractor, based upon the risk evaluation of the disclosed cyber security vulnerabilities by the Contractor.

3. The successful bidder through a digitally signed statement by their Authorized representative shall submit along with their Letter of Acceptance of Supply Order/Work Award Order, the details of obsolescence of any part/component of hardware/software and the list of all new cyber security vulnerabilities in each Product offered for sale, discovered subsequent to the submission of bid, by the Contractor or has come to the knowledge of the Contractor or been brought to the Contractor’s knowledge, by any of their existing Customer or previous Customer, Partner or related/unrelated third Party.

4. During the currency of support agreement for the Products supplied to the Employer or till termination of the support agreement been communicated to the Authorized representative of the Contractor in writing by the Employer, the Contractor shall be liable to disclose details of all additional cyber security vulnerabilities, that been discovered by the Contractor or that comes in the knowledge of the Contractor or is brought to the Contractor’s knowledge by any of their existing Customer or previous Customer, Partner or related/unrelated third Party, along with cyber threat mitigation measures which needs to be taken thereof by the Employer, without any further commercial implication to the Employer.

5. During the currency of support agreement for the Products supplied to the Employer or till termination of the support agreement been communicated to

the Authorized representative of the Contractor in writing by the Employer, the Contractor shall disclose details of all exploits of cyber security vulnerabilities, previously known or unknown, in all Products supplied to the Employer or similar Products supplied to any other customer by the Contractor, immediately upon such information coming in the knowledge of Contractor, through any source including Cyber Security Audit carried out by CERT-In empanelled Auditors, along with cyber threat mitigation measures, which need to be taken thereof by the Employer, without any further commercial implication to the Employer.

6. The Contractor during the currency of support agreement for the Products supplied to the Employer and even after the expiry of the support agreement, shall inform to the Employer from time to time, through the mutually agreed digital/physical mode, in case the Contractor comes across any event(s) or condition(s) that may probably result in, any security breach or likely risks of other compromises, within the Employer's IT or OT Systems and Data Bases, along with cyber threat mitigation measures, which needs to be taken thereof by the Employer, without any further commercial implication to the Employer.

7. In case the Contractor, intentionally or unintentionally, fails to provide, or deliberately do not provide the information or fails to provide cyber threat mitigation measures to be taken thereof by the Employer, as mandated in above clauses from Sl No 2 to Sl No 6, the Commercial Performance Guarantee of the Contractor submitted with the Employer shall stand forfeited without issuance of any show cause notice by the Employer to the Contractor. In case if the Commercial Performance Guarantee of the Contractor submitted with the Employer is forfeited, the Contractor, their Partner Contractor if any, shall be debarred from the participation in future bids invited by the Employer.

8. The Contractor through a digitally signed statement by their Authorized representative shall certify that the cyber security features designed, recommended in the Product supplied by the Contractor or their Authorised Partner or Subsidiaries to the Employer, are in accordance with the defined IEC/ISO/IS Standards, best practices, Cyber laws, and Regulations, as specified by the Employer in their bid document and essential for safe and secure Operation and Maintenance of the IT/OT/ICS systems of the Employer.

9. The Contractor shall ensure that Product supplied against the Supply Order/Work Award Order under consideration, as well as the modifications, reconfiguration, upgradation, changes in Parameters, settings proposed to be made to the existing Architectural layout or utilization of Cyber Assets, as part of the execution of Supply Order/Work Award Order, are in accordance

with the defined IEC/ISO/IS Standards, best practices, Cyber laws, and Regulations, as specified by the Employer in their bid document and essential for safe and secure Operation and Maintenance of the IT/OT/ICS systems of the Employer. All modifications shall be carried out by the Contractor as per mutually written agreement between Employer and Authorized representative of the Contractor, before its implementation/commencement of Supply Order/Work Award Order. The Employer shall be responsible for consulting cyber security experts and for arranging the necessary support to the Contractor, if any modifications are to be made to the existing Architectural layout or utilization of Cyber Assets.

10. The Contractor shall provide a host-based malware detection scheme for the control system network and equipments as per the IEC/ISO/IS Standards mentioned in the bid document of the Employer. The Contractor shall certify the adequacy of the system performance of the deployed host-based malware detection scheme for quarantine (instead of automatically deleting) suspected infected files and the Contractor shall also provide the scheme for updating the Malware signatures. The Contractor shall also test major updates to malware detection applications and provide performance measurement data on the impact of using the malware detection applications in an active system.

11. The Contractor through a digitally signed document by their Authorized representative shall submit to the Employer, in detail the tried and tested backup and disaster recovery technology and plan for the Product as practised by the Contractor till the time of submission of bid.

12. In case, the Contractor accepts the Supply Order/Work Award Order, then, on demand made by Employer, the Contractor shall provide documentation detailing all applications, utilities, system services, scripts, configuration files, databases, and all other software required and the appropriate configurations, including revisions and/or patch levels for each of the computing & Storage systems to the extent deemed necessary for safe and secure operation and maintenance of IT and OT System.

13. The Contractor shall advise Employer as per mutually agreed Terms and Conditions on the measures to be followed by the Employer during Operation and Maintenance of the IT and OT System in accordance with applicable IEC/ISO/IS Standards and best practices, which shall include but are not limited to, cyber security policies and procedures, documentation and training requirements, continuous monitoring of assets for tampering and intrusion, periodic evaluation for asset vulnerabilities, implementation and update of appropriate technical, physical, and operational standards, and

offline testing of all software/firmware patches/updates prior to placing updates into IT and OT Systems of the Product.

14. The Contractor shall provide a listing of services required for all ICT based sub-systems and applications of the Product supplied by them to the Employer. The listing shall include all ports and services required for normal operation as well as any other ports and services required for emergency operation/maintenance of the Product. The listing shall also include an explanation or cross reference furnished by the Contractor or by any authorised Person on behalf of Contractor, to explain why each service is deemed necessary for operation and maintenance of the supplied Product.

15. The Contractor shall certify and provide proof that all default passwords have been reset with hardened password and services are patched to current released version till the time of completion of SAT procedure and issue of successful SAT completion certificate by the Employer.

16. The Contractor shall remove a software component if not required for the operation and maintenance of the system or application, with the Employer's due written permission only. The Contractor shall maintain documentation on what has been removed and shall furnish this information to the Employer as and when called for by the Employer.

17. The Contractor shall notify the Employer in writing on the non-standard operation carried out by the Employer's Employees and that the Contractor shall not be held liable for Vulnerabilities exposed by the listed incorrect operation carried out by the Employer's Employees or any person other than those working on behalf of the Contractor. However, the Contractor shall stand for prosecution and bear any consequential loss or damage suffered by the Employer from exposure to such Vulnerabilities which were known to the Contractor and intentionally not disclosed to the Employer or no measures were suggested for mitigation of risk from such known vulnerabilities.

18. The Contractor shall conduct a mandatory cyber security audit of the entire system delivered twice in a year in accordance with the latest guidelines issued by Ministry of Power, Government of India.
19. Should any Employee of Contractor if required or to be permitted the Logical Access or unescorted physical access to the Cyber Assets of the Employer or of any of their Affiliates, that are identified as "Critical Infrastructure" or as "Protected System" by NCIIPC {constituted under IT Act 70A}, then the Employee of the Contractor shall meet pre-requisites mandated by Employer prior to gaining access to any such "Critical Infrastructure" or "Protected System" of the Employer.

(i) Therefore, when any secured electronic or physical access is needed or to be permitted, all Employees of the Contractor identified as above in this provision shall:
   (a) abide by and shall have successfully completed the Contractor-administered background screening requirement.
   (b) have undergone successfully the mandatory Cyber Security training prescribed by the Employer, for all of their "Critical Infrastructure" and "Protected System" as per CEA(Cyber Security in Power Sector) Regulations 2021.
   (c) have a valid Contractor Identification document and should have been listed in Contractor's Management System for tracking purposes;

   Pursuant to this clause in order to ascertain fitness, qualification and integrity of Employees identified for executing Works awarded to the Contractor, the Contractor shall perform background investigation on these Employees of their Contractor or of their Supplier or of Subcontractors assigned to execute such Work on behalf of the Contractor at the Employer's site or at facilities of the Contractor, their Suppliers/Sub Contractors.

   (d) in the event that the Contractor or their Supplier or Sub-Contractor
      (i) determines that any of the Employee permitted access pursuant to this clause no longer requires access or
      (ii) terminates the employment of any of the Employee having valid permission to such an access.

      pursuant to this clause, Contractor shall notify Employer in writing within 24 hours of such determination or termination.

(ii) The Contractor shall be held responsible and shall have to bear the cost of the damages resulting to the Employer's Asset, Facilities, Business interruptions or damage to the Employer's reputation, out of any cyber incident resulting of any misconduct, on site or remotely, directly or indirectly by the Employee(s) of the Contractor or the Employee(s) of the Supplier or Subcontractor.

20. The Contractor shall password protect the BIOS from unauthorized changes unless it is not technically feasible, in which case Contractor shall document this case and provide mitigation measures. The Contractor shall handover all

the BIOS passwords and provide a documented list of all disabled or removed USB ports, CD/DVD drives, and other removable media devices.

21. With the due approval of the Employer, the Contractor shall configure the network devices to limit access to/from specific locations, where appropriate, and provide documentation of the configuration. With the due approval of the Employer, the Contractor shall configure the system to allow the system administrators the ability to re-enable devices if the devices are disabled by software and provide documentation of the configuration.

22. The Contractor shall have and provide to the Employer the documentation of a written flaw remediation process. Contractor shall provide appropriate software updates and/or workarounds to mitigate all vulnerabilities associated with the flaw in the Product within and up to a pre-negotiated period. After Contractor is made aware of or discovers any flaws, Contractor shall provide notification of such flaws affecting security of software supplied by the Contractor, within and up to a pre-negotiated period. Notification shall include, but is not limited to, detailed documentation describing the flaw with security impact, root cause, corrective actions, commercial implication if any, etc.

23. In addition to the foregoing, the Contractor shall immediately notify Employer in writing if the Contractor at any time discovers any part of the Work to be defective or not in accordance with the Work Award Order.

24. The Contractor shall comply with the Employer’s Application Security standards as mentioned in the bid document, whenever Employer seeks Coding for Security enhancement.

25. The Contractor shall provide a process for Employer’s Employee(s) to submit problem reports and remediation requests to be included in the system security. The process shall include tracking history and corrective action status reporting. The Contractor shall review and report their initial action plan within 24 hours. Contractor shall secure reports on problem regarding security vulnerabilities from public discloser and notify Employer of all problems and remediation steps, regardless of origin of discovery of the problem. Contractor shall inform Employer in writing of flaws within applications and operating systems in a reasonable period and provide corrective actions, fixes, or monitoring guidance for vulnerability exploits associated with the flaw. Contractor shall provide an auditable history of flaws including the remediation steps taken for each.

26. The Contractor shall provide a system whereby account activity is logged and is auditable both from a management (policy) and operational (account use activity) perspective. Contractor shall time stamp, encrypt, and control access to audit trails and log files. The Contractor shall ensure audit logging does not adversely impact system performance requirements. Contractor shall provide read-only media for log creation.

27. The Contractor shall provide a configurable account password management system that allows for selection of password length, frequency of change, setting of required password complexity, number of login attempts, inactive session logout, screen lock by application, and denial of repeated or recycled use of the same password. Contractor shall not store passwords electronically or in Contractor supplied hardcopy documentation in clear text unless the media is physically protected. Contractor shall control configuration interface access to the account management system. Contractor shall provide a mechanism for rollback of security authentication policies during emergency system recovery or other abnormal operations, where system availability would be negatively impacted by normal security procedures, but such rollback shall not be automatic, and would require the specific affirmative agreement of Employer.

28. The Contractor shall configure hosts Operator workstation with least privilege file and account access and provide documentation of the configuration. The Contractor shall configure the necessary system services to be executed at the least user privilege level, possible for that service and provide documentation of the configuration. Upon the completion of the task of changing or disabling access to such files and functions as directed by the Employer, the Contractor shall provide documented evidence that the tasks has been successfully completed.

29. The Contractor shall recommend which specific accounts need to be active and those that can be disabled, removed, or modified. The Contractor shall disable, remove, or modify all the accounts pursuant to the approved recommendation from Employer. The Employer shall be responsible for correct usage and maintenance of the defined accounts.
30. Limitation of Liability

    (i) In General, the Contractor is responsible and liable, till the Contract period, for mitigating all vulnerabilities associated with the Product and maintaining the established level of system security in the system of the Employer.
    (ii) In particular Contractor assumes no liability whatsoever for damage caused by

(a) unauthorized modification of the system configuration or security level;

(b) the installation of patches which are not authorized by Contractor; or

(c) the Employer delaying the self-installation of patches made available by Contractor.

31. Definitions for various terminology shall be in accordance with international standard e.g. ISO/IEC series 27000, 27001, IS 16335, IEC 62443
32. Prior reference countries means a country which shares the land border with India.

Any item imported for end use or to be used as a component or as a part in manufacturing, assembling of any equipment or to be used in power supply system or any activity directly or indirectly related to power supply system shall adhere to the following guidelines:

(i) All the equipment, components, and parts imported for use in the Power Supply System and Network shall be tested in the country to check for any kind of embedded malware/Trojans/cyber threat and for adherence to Indian Standards

(ii) All such testings shall be done in certified laboratories that are designated by Ministry of Power (MOP), Government of India.

(iii) Any import of equipment/component/parts from “prior reference” countries as specified or by persons owned by, controlled by, or subject to the jurisdiction or the directions of these “prior reference” countries will require prior permission of the Government of India

(iv) Where the equipment/component/parts are imported from “prior reference” countries, with special permission, the protocol for testing in certified and designated laboratories shall be approved by the Ministry of Power (MOP), Government of India.

33. IT HARDWARE:

(i) All IT hardware equipment supplied shall have a valid Certificate of Common Criteria as per ISO/IEC 15408 issued by signatories of the Common Criteria Recognition Agreement (CCRA) – www.commoncriteriaportal.org.

(ii) Import/Procurement and supply from vendors sourcing from prior reference countries, the certificate for Common Criteria shall be from Government Laboratories in India according to the IC3S scheme operated by Ministry of Electronics and Information Technology, which is a signatory to CCRA. https://www.commoncriteria-india.gov.in/

Annexure-VIII

Manufacturer's Authorization Form (MAF)
(To be submitted on the Letterhead)

To,
The General Manager (C&R)
Corporate Office, BESCOM,
K R Circle,
Bengaluru – 560 001, Karnataka, India

Sub. : Manufacturers Authorization Form for Android OS based Integrated Spot billing Device
Ref. : Tender Enquiry No:

Dear Sir,

We, M/s _____ who are established and reputable manufacturers of Android OS Based integrated Spot Billing Devices (SBD) having specification similar/better as specified in the bid document, having production unit at _____ do hereby authorize M/s ..... (Name and address of Supplier/Dealer) to offer their quotation, negotiate and conclude the contract with you against the above invitation for tender offer. Further, hereby we confirm that we comply to all the necessary qualification requirement as per the tender and we are submitting all the required self-attested documentary evidences to fulfil the tender condition through supplier/dealer. We hereby extend our full guarantee and warranty for 3 years as per terms and conditions of the RFP and the contract for the equipment and services offered against this invitation for RFP offered by the above Firm. Further, we hereby undertake if any false representation is made or if we default in supply and service including quality/performance of the above equipment, BESCOM reserves the right to blacklist, terminate, Recovery of the damages of the contract from both the supplier and the OEM.

Yours faithfully,

Name and Title of Signatory:

M/s..... (Name of manufactures)
Company Name:

Address:
Place:
Date:
Company Seal

Annexure-IX

IMPORTANT : TO BE UPLOADED IN E-PROCUREMENT PORTAL

PROFORMA OF SELF DECLARATION ON BIDDER's PERFORMANCE

(To be furnished on the Bidder's Letter Head)

Ref ……. Date ……

To,
The General Manager (C&R)
Corporate Office, BESCOM,
K R Circle,
Bengaluru – 560 001, Karnataka, India

Dear Sirs,

I*/We* have read and examined the requirement of the tender condition stipulated against clause No. ... of Section IB of Bid Documents relating to the Tender Enquiry No. ……. for …….. (full scope of Work).

I*/We* hereby undertake to declare that

i) I*/We* have not made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or

ii) I*/We* did not have any record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.; and/or

iii) I*/We* have participated in the previous Tender for the same nature of work and had not quoted unreasonably high tender prices and furnished prices were rationally justified.

This undertaking is in consideration of BESCOM agreeing to open my/our Bid and consider and evaluate the same for the purpose of award of work in terms of provisions in the bid documents.

Date: Signature along with Seal of Co.

……
(Duly authorised to sign the
Tender On behalf of the Bidder)
Name …….
Designation …….

Name of Co .....
(in Block Letters)

*Strike out whichever is not applicable.

Annexure- X

Declaration on not being blacklisted or banned or debarred etc
(To be submitted on the Non-judicial stamp paper of appropriate value)

Ref ……. Date: __/__/2023

To,
The General Manager (C&R)
Corporate Office, BESCOM,
K R Circle,
Bengaluru – 560 001, Karnataka, India

Subject: Tender for Supply, Integration, Warranty & On-site Maintenance of Android OS based Integrated Spot Billing Device (SBD), Connectivity, software, Thermal paper and allied services for Spot Billing in RAPDRP/IPDS area (Urban Area) of BESCOM for a Period of 03 Years

Reference: Tender Enquiry No. :

Dear Sirs,

We hereby declare that M/s_____ with any of the State government or Central Government or PSU or Municipal agencies in India or Abroad at the time of submission,

(i) is not under a declaration of ineligibility for corrupt or fraudulent practices with any of the State government or Central Government or PSU or Municipal agencies in India or Abroad at the time of submission. AND
(ii) Have not been blacklisted or banned or debarred. AND
(iii) Our Work orders have not been short closed due to non-performance or LOA is withdrawn by the owner due to inefficiency in performing or implementing assigned project in technically/financially.

Further we undertake that, If BESCOM found that the above undertaking consists of misleading information and/or suppressing of the facts, BESCOM shall reject the bid and BESCOM reserves the right for black listing including initiation of legal/criminal proceeding

Signature
Name in Block Letters
Designation
Firm Name
Date

Annexure-XI

IMPORTANT : TO BE UPLOADED IN E-PROCUREMENT PORTAL

PROFORMA OF SELF DECLARATION FOR BORDER SHARING OR NOT SHARING BY BIDDERS

(To be furnished on the Bidder's Letter Head)

Ref ..... Date .....

To,
The General Manager (C&R)
Corporate Office, BESCOM,
K R Circle,
Bengaluru – 560 001, Karnataka, India

Dear Sirs,

I*/We* have read and examined the requirement of the tender condition stipulated in Section IB of Bid Documents relating to the Tender Enquiry No. ..... for ..... (full scope of Work)

I*/We* hereby undertake to declare that **(Applicable in case of Bidders from Countries not sharing Border with India)**

I*/We* have read the clause regarding restrictions on procurement from a Bidder of a country which shares a land border with India;
I*/We* certify that .....(Bidder) is not from such a country which shares a land border with India. I hereby certify that our bid fulfills all requirements in this regard and is eligible to be considered.

OR

I*/We* hereby undertake to declare that **(Applicable in case of Bidders from Countries sharing Border with India)**

I*/We* have read the clause regarding restrictions on procurement from a Bidder of a country which shares a land border with India;
I*/We* certify that .....(Bidder) is from such a country which shares a land border with India and has been registered with the Competent Authority. I hereby certify that our bid fulfills all requirements in this regard and is eligible to be considered and also evidence of valid registration issued by the Competent Authority is uploaded.

This undertaking is in consideration of BESCOM agreeing to open my/our Bid and consider and evaluate the same for the purpose of award of work in terms of provisions of bid documents.

Date: Signature along with Seal of Co.

.....
(Duly authorised to sign the Tender On behalf of the Bidder)
Name .....
Designation .....
Name of Co ..... (in Block Letters)

***Strike out whichever is not applicable.**

Please Note : Among the above two declarations, only one which is applicable is to be declared.